

Exhibit 75

In The Matter Of:

Chapman vs. Avon Products, Inc., et al.

Dr. William Longo, Vol. 3
October 3, 2022

Abrams, Mah & Kahn Reporting Service

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1 You have not validated by SAED, EDS, or EDXA any
2 finding of chrysotile in talcum powder from a Cashmere
3 Bouquet container, correct?

4 **A. Still haven't.**

5 Q. You have not validated identification of
6 chrysotile and any talcum powder by SAED, correct?

7 **A. We have not done TEM on that yet, but we have**
8 **validated it because we have looked at the chrysotile that**
9 **we're finding. We have compared it to standards that has**
10 **the same size of chrysotile, which shows the same type of**
11 **dispersion and light, shows the same type of refracted**
12 **indices.**

13 **We have been validated by Mickey Gunther that the**
14 **SG 210 has the, quote, orangeish-yellow to blueish**
15 **dispersion. And in my opinion, the thought that we are**
16 **misidentifying fibrous talc for chrysotile, I think it's**
17 **actually reverse. Defendant experts are misidentifying**
18 **chrysotile for fibrous talc. So when you say we haven't**
19 **validated it, there is no requirement that PLM analysis**
20 **has to have -- also pass mustered yet. And you have to**
21 **have TEM.**

22 **So I just want to make it clear that we have not**
23 **analyzed it by TEM at this point. We have -- have a few**
24 **samples where we have SEM that shows that shows that it is**
25 **in the same sample. And we will get there, but as far as**

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1 fraction crepes drawn from Cashmere Bouquet?

2 **A. Not yet.**

3 Q. Have you used all of your light fraction material
4 to load SEM stubs, or do you still have material
5 available?

6 **A. Well, we have maybe 3 or 4 milligrams available.**

7 Q. Have you loaded any SEM stubs at all yet?

8 **A. Not yet.**

9 **MR. SLAUGHTER:** Thank you, Doctor. That's all
10 the questions that I have for you.

11 Counsel, for the record, we would just ask that
12 you preserve the Cashmere Bouquet materials so that we can
13 get our own splits to the extent that they're being tested
14 again or -- and/or give us notification when those tests
15 will be done.

16 That's all I have.

17 Thank you, Doctor. I appreciate your time.

18 EXAMINATION

19 BY MR. SCULLY:

20 Q. Dr. Longo, Tom Scully here. Can you hear me?

21 **A. I can.**

22 Q. Dr. Longo, what we're going to do is we are going
23 to mark as the next exhibit in order your supplemental
24 report for Avon talcum powder, which is dated
25 September 30, 2022.

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1 **I'm concerned, we have validated it.**

2 **MR. SLAUGHTER:** Object to the nonresponsive
3 portion, but thank you for that answer.

4 BY MR. SLAUGHTER:

5 Q. Are you still in the beta phase for method
6 development for identifying chrysotile in talc?

7 **MR. BUHA:** Vague and ambiguous.

8 **THE WITNESS:** Yes. We're now running the SG 210
9 and looking at different variations of heavy liquid to
10 maximize it starting from scratch. So it's been since
11 we -- well, we've had these SG 210s for a while and forgot
12 about them. But that is -- that is the best product right
13 now because it is -- the refractive indices are almost
14 identical. They're within a few thousandths of a
15 refractive indice.

16 And once that is -- once we have that -- have
17 that maximized, so I can publish it, and then we'll go on
18 to TEM.

19 **MR. SLAUGHTER:** Thank you.

20 Object to the nonresponsive portion.

21 BY MR. SLAUGHTER:

22 Q. Couple more questions. And I think Dr. Longo,
23 you sort of answered this already, but I just want to be
24 clear. And I'll be done in one minute.

25 Has your lab commenced testing by SEM, the light

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1 (Exhibit 43 marked for
2 identification.)

3 BY MR. SCULLY:

4 Q. Do you have that?

5 **A. Yes.**

6 Q. Dr. Longo, is that report 87 pages total?

7 **A. That seems about right. I don't have page**
8 **numbers on it, but if I were to count them all up, I would**
9 **think that's what it was.**

10 Q. Dr. Longo, is this now your final report for
11 Avon?

12 **A. For these two, I hope so.**

13 **MR. BUHA:** Calls for speculation.

14 BY MR. SCULLY:

15 Q. Doctor, are you prepared to vouch for the results
16 of this report?

17 **MR. BUHA:** Vague. Ambiguous.

18 **THE WITNESS:** Yes, sir. This -- this supplement,
19 I believe, cures a few of the problems associated with the
20 other one.

21 **MR. SCULLY:** No further questions.

22 Let the record reflect that was under one minute
23 of questioning.

24 **THE WITNESS:** I'm impressed -- very impressed.

25 **MR. LANKFORD:** Anyone else before I ask my few

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1 **MR. SCULLY:** Can we have seven more hours?
 2 **THE WITNESS:** Well, that's never up to me. I
 3 think it's --
 4 **MR. BUHA:** I don't have anything further. I'll
 5 reserve at trial.
 6 We can go off the record.
 7 -oOo-
 8 (The deposition concluded at 2:02 p.m.)
 9 * * *


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REPORTER'S CERTIFICATION

1
 2
 3 I, AMANDA J. DOSS, Certified Shorthand
 4 Reporter in and for the State of California, do hereby
 5 certify:

6
 7 That the foregoing witness was by me duly
 8 sworn remotely; that the deposition was then taken before
 9 me at the time herein set forth; that the testimony
 10 and proceedings were reported stenographically by me
 11 and later transcribed into typewritten form under my
 12 direction; that the foregoing is a true record of the
 13 testimony and proceedings taken at that time.

14
 15 IN WITNESS WHEREOF, I have subscribed my name
 16 this October 8, 2022.

17
 18
 19
 20
 21 
 Amanda J. Doss, CSR No. 13745

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DECLARATION UNDER PENALTY OF PERJURY

1
 2
 3 I declare under penalty of perjury that I have
 4 read the entire transcript of my Deposition taken in
 5 the captioned matter or the same has been read to me,
 6 and the same is true and accurate, save and except for
 7 changes and/or corrections, if any, as indicated by me
 8 on the DEPOSITION ERRATA SHEET hereof, with the
 9 understanding that I offer these changes as if still
 10 under oath.

11 Signed on the _____ day of _____,
 12 2022.

13 _____
 14 DR. WILLIAM LONGO

Exhibit 76

ATLANTA
Corporate Headquarters
3945 Lakeland Court
Suwanee, GA 30024
(770) 866-3200 FAX (770) 866-3259



MAS Project M71614
Talcum Powder Analysis
Valadez- J & J Baby Powder Container



Prepared for: The Law Firm of Kazan, McClain, Satterley & Greenwood

Prepared By: William E. Longo, Ph.D., CEO

Materials Analytical Services, LLC

02/28/2023

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PROJECT SUMMARY

This report provides the results for the analysis of the Johnson & Johnson Baby Powder (JBP) container submitted to MAS by Joe Satterley on behalf of the Kazan, McClain, Satterley & Greenwood law firm. The JBP container was sent to MAS on 1/25/23 where it was received and logged in on 1/26/23 and then placed in a secure laminar flow hood. The JBP sample container was assigned the following MAS laboratory tracking number of M71614-001.

Table 1 provides a sample description summary of the JBP that was analyzed for asbestos.

Table 1
JBP Sample Container Descriptions

MAS Sample No.	Product	Container size (oz)	Container Code	Condition of Container	Source of Sample
M71614-001	2018 Johnson's Baby Powder	1.5	11219RA	Sealed	Submitted by Joe Satterley

OVERVIEW

This report provides the analytical results for the testing of one JBP container that MAS analyzed as requested by the law firm of Kazan, McClain, Satterley & Greenwood. According to the chain of custody information, the JBP container was purchased from a market gift shop at the Court Yard Marriott located in Merced, California. The container was sealed as shown in the photographs located in Section 5 of this report.

The talcum powder in the JBP sample container was analyzed for both chrysotile and amphibole asbestos using PLM and ATEM.

For the chrysotile analysis, the sample was first prepared by the Colorado School of Mines (CSM) sample preparation method (with HLS), then the prepared sample was analyzed by PLM using a refractive index fluid 1.560.

For the detection of amphibole asbestos for the JBP container, both PLM and ATEM analysis methods was done. For PLM analysis, the sample was prepared (with HLS) by the New York ELAP method. The PLM analysis used method ISO 22262-1 with refractive index fluid 1.605. The ATEM sample preparation was analyzed using the standard TEM methods.

Overview of Results

The CSM Sample Preparation (with HLS) & Analyzed by the ISO 22262-1 Method

The amount of chrysotile found in the JBP sample had an average estimated volume weight concentration of 0.0003 to 0.006% (recovery weight corrected). The average amount of chrysotile bundles was 56,000 bundles per gram of talc (recovery weight corrected).

The NYELAP (with HLS) Method for Amphibole Asbestos

The analysis showed that the JBP sample was non-detect for amphibole asbestos.

ISO 22262-1&2 ATEM HLS Method for Amphibole Asbestos

The JBP sample was found to be non-detect, with a detection limit of <52,000 structures per gram.

MATERIALS & METHODS

JBP Sample Container

After the JBP sample container was logged in at MAS, the container was transferred to the cosmetic talc archive room where it was photographed in the received condition and inspected for damage or tampering. The MAS chain-of-custody documents can be found in Section 2 of this report, and photographs the container can be found in Section 5 of this report.

Muffle Furnace

For this procedure, approximately 1 to 2 grams from the talcum powder sample was removed from its container (Sartorius Research Balance) and placed in a glass scintillation vial. The scintillation vial was then placed in a Fisher Scientific Iso-temp muffle furnace Model #620 at 480°C for a minimum of 12 hours to remove any organic material. Typically, the muffle furnace sample is run overnight.

CSM Sample Preparation Method (with HLS) and ISO PLM Analysis (Chrysotile Asbestos)

CSM Sample Preparation

Approximately 200 milligrams from the muffled talcum powder sample were transferred into a 15 ml centrifuge tube (VWR 10026-076). Through the use of DI water, approximately 5 ml of adjusted HL (Lithium heteropolytungstates solution, GeoLiquids, Inc., Cat. No. LST010 (stated density of 2.85 g/cc), was diluted to a new density of 2.65 g/cc, as determined by a VWR Hydrometer, Model Number 34620-1109.

The newly diluted HL was added to the VWR centrifugation tube containing the talcum powder sample and then shaken vigorously for 10 to 20 seconds. The VWR centrifugation tube was then placed in an Ohaus Frontier 5000 series centrifuge set at 2000 RPM for 92 hours at room temperature without breaking. After removing the tube from the centrifuge, the talc/heavy liquid

(light fraction) was pipetted off the top of the centrifuge tube, then mixed with DI water and filtered onto a new 0.45um 47mm PC filter and allowed to dry under a drying lamp for 20 to 30 minutes. This washing step was repeated two more times for the sample.

After drying, the final MCE filter/talc sample (light fraction) was provided to the PLM analyst. The 47 mm MCE filter was weighed before HLS recovery process, then after the filtration and drying of the heavy fraction.^{1,2}

PLM – New York ELAP Method (with HLS Sample Preparation) for Amphibole Asbestos

Approximately 200 milligrams from the muffled talcum powder sample were transferred into a 15 ml centrifuge tube (VWR 10026-076). Through the use of DI water, approximately 5 ml of adjusted HL (Lithium heteropolytungstates solution, GeoLiquids, Inc., Cat. No. LST010 (stated density of 2.85 g/cc), was diluted to a new density of 2.78 g/cc, as determined by a VWR Hydrometer, Model Number 34620-1109.³

The newly diluted HL was added to the VWR centrifugation tube containing the talcum powder sample and then shaken vigorously for 10 to 20 seconds. The VWR centrifugation tube was then placed in an Ohaus Frontier 5000 series centrifuge set at 2000 RPM for 92 hours at room temperature without breaking. After removing the tube from the centrifuge, the talc/heavy liquid (light fraction) was pipetted off the top of the centrifuge tube. The pellet along with the DI water was then filtered onto a new 0.45um 47mm PC filter and allowed to dry under a drying lamp for 20 to 30 minutes. This washing step was repeated two more times for the sample.

After drying, the final MCE filter/talc sample (heavy fraction or pellet) was provided to the PLM analyst. The 47 mm MCE filter was weighed before HLS recovery process, then after the filtration and drying of the heavy fraction.

ISO 22262-1 PLM Analysis of the Samples Prepared by the CSM & New York ELAP Method

Approximately 100 milligrams from the muffled talcum powder sample (heavy fraction) were analyzed by the ISO 22262-1 PLM method. To determine the actual amount of talcum powder analyzed by this method, the sample was prepared as follows: two new glass slides that are used to analyze the talcum powder sample by PLM for this project were separately weighed and recorded (Sartorius Research Balance). Next, three talcum powder sample mounts were placed on the two glass slides (one talcum powder mount on one slide and two talcum powder mounts on the second slide). While each sample mount was transferred onto the glass slides, each of the glass slides were reweighed and recorded. Afterwards, a drop of either 1.560 (CSM) or 1.605 (NY) refractive index fluid was placed on each sample mount and stirred with the point of a scalpel blade. The three sample mounts were then covered with an 18 x 18 mm glass cover slip.

¹ Colorado School of Mines Research Institute February 26, 1973 Report Re: Mineralogical Examination of Five Talc Samples to W.H. Ashton from W.P. Reid and W.T. Caneer.

² Colorado School of Mines Research Institute April 2, 1973 Report re: Mineralogical Examination of four Samples for Tremolite and Chrysotile from W.P. Reid to W.H. Ashton.

³ NY Environmental Laboratory Approval Program Certification Manual, ELAP Method 198.8

Each sample was then examined under elongation PLM conditions, cross polars with the 530 nm analyzer plate inserted. 30 total fields per field of view (a single PLM field of view has an area of 0.785 mm^2) are examined (10 fields of view for each of the three mounts) for a total area examined of 23.55 mm^2 .

Positive identification of chrysotile asbestos bundles was done by morphology, refractive indices, elongation, extinction angle, birefringence and pleochroism as described by the ISO 22262-1 PLM method. The ISO PLM analysis protocol was used to show how the analysis is done. However, the range of acceptable RIs for the NIST 1866b chrysotile were not used. The reason for this will be discussed later in this report.

If chrysotile is present, the PLM analyst will count the number of positively identified chrysotile structures in each field of view based on the above criteria and record that number on the MAS PLM data sheet.

In addition, up to three or four representative chrysotile bundles are photographed in both the parallel and perpendicular direction under dispersion staining, elongation, cross polars and with polarizers out. The detection limit for this method, as specified by the ISO 22262-1 method, is the finding of either 1 fiber or 1 bundle in the analysis.

As described above, amphibole asbestos was also analyzed by the ISO 22262-1 PLM method. In addition to the determination of whether regulated amphibole asbestos structures are present in the sample, the sample was also examined for possible amphibole cleavage fragments in 1.605 RI fluid. The detection limit for this method, as specified by the ISO 22262-1 method, is the finding of either 1 fiber or 1 bundle in the analysis.

ATEM Sample Preparation: Amphibole Asbestos ISO 22262-2 (with HLS Sample Preparation)

The HLS sample preparation for the ATEM analysis was done by the ISO 22262-1 & 2 methodology. Approximately 25 to 30 milligrams (Sartorius Research Balance) from the muffled furnace talcum powder sample were placed into a labeled 15 ml centrifuge tubes (VWR 10026-076).

Approximately 5 ml of heavy liquid (Lithium heteropolytungstates solution, GeoLiquids, Inc., Cat. No. LST010 (stated density 2.85 g/cc) was added into the centrifuge tube containing the talcum powder sample, that was then prepared and shaken vigorously by hand for 10 to 20 seconds.

The centrifuge tube was placed in an Eppendorf micro-centrifuge (Model No. 2412D) set at 2000 RPM for 24 hours at room temperature. After removing the tube from the centrifuge, the talc/heavy liquid (light fraction) was pipetted off the top of the centrifuge tube.

Deionized water was added to the centrifuge tube to bring the volume to approximately 15 ml. The 15 ml centrifuge tube was then capped and inverted by hand 2 times to distribute the collected material in the bottom of the tube tip. Next, the 15 ml mixture was immediately and continuously

filtered through a separate 47 mm Polycarbonate filter (PC) with a 0.22µm pore size. After the mixture was filtered, the excess heavy liquid was washed through the filter with the addition of approximately 100 ml of deionized water. The prepared PC filter was placed in a new disposable plastic 47 mm petri dish and allowed to dry at ambient room temperature in a HEPA hood for a minimum of 2 hours. The processed PC filter sample was directly prepared onto 100 µm TEM size grids (2 for analysis and 1 for archive) using the standard TEM filter preparation protocol for PC filters.^{4, 5, 6}

ATEM Amphibole Asbestos Analysis: ISO 22262-1 & 2

For the ATEM analysis, 100 grid openings were analyzed between two grids (50 openings per grid). JEOL 1200EX ATEMs equipped with either a Noran or an Advanced Analysis Technologies (light element) energy dispersive x-ray analyzer (EDXA) were employed for this analysis.

The sample was analyzed at a screen magnification of 20,000X. Verification of regulated amphibole asbestos structures is done in the ATEM by the following three steps:

Morphology (Step 1)

The determination of the fibrous morphology for any potential regulated amphibole asbestos structures in the TEM sample was done by the standard ATEM methodology.^{3,5} Morphology is identified when the fibers and bundles of potential asbestos structures have substantially parallel sides with an aspect ratio of 5:1 or greater, and at least 0.5 µm in length.

Regulated Amphibole Asbestos Verification (Steps 2 & 3)

Potential fibrous amphibole asbestos structures that fit the above morphology criteria are analyzed in the ATEM by EDXA for the fiber/bundle chemistry (Step 2) and selected area electron diffraction (SAED), for the appropriate crystalline lattice measurements for amphibole asbestos (Step 3) as described in the ISO 22262-1 & 2 methods.

The detection limit for this method, as specified by the ISO 22262-1 method, is the finding of either 1 fiber or 1 bundle in the analysis.

Process Laboratory Blank

The process laboratory blank (M71614-000) was run concurrently with the corresponding JBP sample preparations by the ATEM HLS method (amphibole asbestos). The process blank PC filter was prepared in the same exact manner as the ATEM talcum powder sample (with heavy liquid, filtration on PC filters, etc.) but without any talcum powder. For the ATEM analysis, 100 grid openings (two grids, 50 grid openings each) were analyzed for the process blank.

⁴ D5755-09 "Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Loading.

⁵ D5756-02 "Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust Loading by Transmission Electron Microscopy for Asbestos Mass Surface.

⁶ U.S. Environmental Protection Agency (USEPA) 1987. Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Appendix A to Subpart E, USEPA, Washington D.C.

RESULTS

CSM Sample Prep. (HLS)/ISO 22262-1 PLM Analysis Chrysotile Asbestos)

The amount of chrysotile found in the JBP sample had an average estimated volume weight concentration of 0.0003 to 0.0006% (recovery weight corrected). The average amount of chrysotile bundles was 56,000 bundles per gram of talc (recovery weight corrected).

The average birefringence (BIR) of the chrysotile bundles was calculated from the refractive index measurements and found to have a BIR classification of 0.006 which is classified as a Low birefringence (<0.01).

The CSM/ISO-PLM data sheets can be found in Section 3 of this report.

PLM – New York ELAP Method Sample Prep. (HLS)/ ISO-22262-1 PLM Analysis for Amphibole Asbestos

The analysis showed the JBP sample was non-detect for amphibole asbestos.

The ISONY-PLM data sheet can be found in Section 3 of this report.

ATEM ISO 22262-1 & 2 Amphibole Asbestos Method

The ISO 22262-2 ATEM heavy liquid separation method showed that the JBP sample reported a detection limit of approximately <52,000 structures/bundles per gram.

The ATEM data sheets can be found in Section 3 of this report. The summary of the ATEM results are shown in Table 2.

ATEM Process Blanks

The analyzed ATEM process blank sample showed no asbestos structures, cleavage fragments or fibrous/platy talc detected. The ATEM data sheets can be found in Section 4 of this report. The summary of the overall analytical results is shown in Table 2.

Table 2
Overall Summary of the JBP Asbestos Sample Analysis Results

MAS Sample #	ATEM Amphibole Asbestos	ISO-NY PLM Wt. % Amphibole Asbestos	CSM-PLM w/o HLS Chrys %	CSM Weight Recovery Light fraction	CSM Chrys % Weight Corrected**
M71614-001	<52,000	NSD	0.002-0.004	15.8%	0.0003-0.0006

*NSD: No Structure Detected **Weight Corrected

The refractive index and calculated birefringence values are shown in Table 3.

Table 3
Overall Summary of the Calculated Chrysotile
BIR CSM-PLM Data
(RI Fluid 1.650)

MAS Sample #	Chrysotile RI Values CSM-PLM	Birefringence Calculations
M71614-001	1.568-1.564 1.564-1.557	0.004-0.007 avg. = 0.006
	α range γ 1.564-1.557 1.568-1.564	Avg. = 0.006

Estimation of the Number of Chrysotile Bundles Detected for CSM PLM Methods

Using the number of chrysotile bundles counted during the PLM analysis, and the amount of talcum powder analyzed in a specified area on the cover slip mount per the two glass slides, the amount of chrysotile bundles per gram of talcum powder sample can be calculated.

Total chrysotile bundles in the sample is calculated as shown in the following equation:

$$(A1 \div A2) \times (CB) \div W = TCB/W$$

Where:

A1: The total area (972 mm²) that the talcum powder occupies on the two glass slides.

A2: The area (23.55 mm²) in thirty fields of view that the talcum powder occupies on the two glass slides.

CB: Number of chrysotile bundles detected in a positive sample by PLM analysis.

W: Weight of total talcum powder placed on the two glass slides.

TCB/W: Total number of chrysotile bundles per weight (grams) of talcum powder.

The results of CSM sample preparation analysis calculations are shown in Table 4.

Table 4
Summary of Estimated Chrysotile Bundles per gram Calculations
For the CSM PLM Results

MAS Sample #	wt. of sample grams	No. of Chrys Bundles counted	CSM/ISO Chrysotile Bundles/g	CSM/ISO* Chrysotile Bundles/g
M71614-001	0.0007	6	354,000	56,000*
			Avg. = 354,000	Avg. = 56,000*

Weight corrected*

The average of the amount of chrysotile bundles for the CSM sample preparation methods for the JBP sample was 56,000 bundles per gram of talc.

DISCUSSION/CONCLUSION

Colorado School of Mines (w HLS) Sample Preparation of Cosmetic Talc

This section reviews the development of the double density cosmetic talc sample preparation, by the Colorado School of Mines Institute, on behalf of J&J for the concentration of chrysotile and amphibole asbestos.

The sample preparation part of the MAS chrysotile analysis is based on the work done by the CSM in the early 1970's for the detection specifically for possible chrysotile and amphibole asbestos in J&J sourced Vermont talcum powder, from the Frostbite mine using, double heavy liquid separation (<2.9 g/cc & >2.9 g/cc).

An overview of this method development by CSM is as follows:

In a January 17, 1973 Windsor Minerals document sent by R.N. Miller to Mr. Bill Ashton of J&J, subject: "Core samples, diamond drill holes, **Frostbite mine**" informing Bill Ashton that Windsor Minerals was sending 1/8 split of our retain samples from the cosmetic ore sampling done in these holes. The memo goes on to say, "This is the material which was sent to Colorado identified as CN core which we conducted our pilot production runs which yielded Grade 66 material. (JNJ000682638)⁷

Cosmetic Talc Core Samples mailed to Colorado School of Mines:

Hole Numbers

1. 30-71-S 4. 32-71-S
2. 30-B-71-S 5. 34-71-S
3. 30-C-71-S

February 26, 1973 Colorado School of Mines (CSM) document for, Project no. C10704, reported their analysis W.H. Ashton, where these same five Frostbite core samples were prepared with heavy liquid separation (HLS) with two different densities (<2.9 & >2.9) and with acid leaching. (JNJNL61_000008084 thru JNJNL61_000008089). The "as received samples" and were first analyzed using x-ray diffraction and microscopic studies without HLS.

⁷ January 17, 1973 Windsor Minerals document sent by R.N. Miller to Mr. Bill Ashton of J&J, subject: "Core samples, diamond drill holes, Frostbite mine".

The results stated that "Relative to possible asbestos type minerals, samples **30-71-S** and **30-B-71-S** contained slight traces of tremolite-actinolite minerals. Sample **32-71-S** is suspected to contain a very minor amount of serpentine which maybe chrysotile".

As further outlined in the **2/26/1973 Report**, the next phase of study was that the 5 Frostbite talc ore samples were first fractionated using heavy liquid separation (HLS) and then with acid dissolution, then analyzed by XRD. The report describes the HLS method as follows: Each of the ground talc ore was separated into fractions by centrifugation in heavy liquids: specific gravity <2.90 and specific gravity >2.90. After the x-ray diffraction of the >2.90 specific gravity fractions, the sample was leached with 1:1 HCL to remove magnesite. The insoluble residue was then examined for amphiboles with a petrographic microscope. In both Phase 1 and Phase 2, possible serpentine was detected in Frostbite ground talc ore sample 32-71-S.

The last phase of this analysis, CSM attempted to verify the presence of serpentine in sample 32-71-S <2.65 fraction by step scan x-ray diffraction over the critical diffraction peaks of serpentine which is in the 7Å and 14Å region, **"the initial result suggested that serpentine, not chlorite, was present."**

Microscopic examination of the <2.65 fraction identified a "very minor (1%) amounts of possible serpentine fibers" that was facilitated by staining with 1% iodine in glycerin.

The report recommended that further work be done on this sample (32-71-S). It has been suggested in the past by defense attorneys that this statement meant that more work was needed on the heavy liquid separation sample preparation method. That suggestion is not true.

April 2, 1973 Colorado School of Mines (CSM) document for Project no. C10704, reported their analysis to W.H. Ashton, where the primary objective of the studies was to determine the presence or absence of tremolite and chrysotile in talc bearing head samples labeled 1 through 4.

For the HLS sample preparation and analysis, by CSM, the four head talc ore samples were first ground into two size ranges of minus 200 plus 325 and minus 325. The samples were then prepared with CSM's double heavy liquid separation method and acid dissolution, analyzed by XRD and or optical microscopy. For optical microscopy of tremolite analysis, RI fluid 1.600 was used for their PLM analysis of the tremolite asbestos. MAS has been criticized in the past for using 1.605 RI fluid because it was not high enough as suggested by J&J's experts, even though the CSM used 1.600 used a lower RI fluid.

Results:

Chrysotile (HLS <2.65 g/cc)

- 1) **Minus 200 plus 325 mesh:** Chrysotile abundance was estimated as <0.0001% in sample 3 and <0.0006% for sample 4.

- 2) **Plus 325 mesh:** Chrysotile abundance was estimated as <0.0007% in samples 2, 3 and <0.0006% for sample 4.

Tremolite (HLS >2.90 g/cc)

- 1) Minus 200 plus 325 mesh: possible tremolite was found in sample 2 is estimated at <0.002%
- 2) **Minus 325 mesh:** No tremolite was detected in any of the four samples.

These four samples were labeled “head” samples which defined as average grade feed that goes into the mill before the flotation process. There was no identification of the source of the talc samples in the April 2, 1973 Colorado School of Mines Report. However, it is most likely these head samples were collected in the same area that sample 32-71-S was collected from the Frostbite mine. The reason for this is that in the Colorado School of Mines 2/26/1973 report to Dr. Ashton, the very last sentence in the report states “that further work be done on this sample 32-71-S”.

It would seem logical that the next set of talc samples analyzed was fulfilling that further work statement about Frostbit sample 32-71-S. Also, there were only 36 days between the CSM February and April reports, and all three of these reports have the same CSM Project no. C10704.

December 27, 1973: Colorado School of Mines Research Institute prepared the following report for Johnson & Johnson, “A Procedure to Examine Talc for the Presence of Chrysotile and Tremolite-Actinolite Fibers. Project C10704. (JNJ 000268037 to 045).⁸

This CSM report provides the methodology using double density heavy liquid separation for chrysotile and amphibole asbestos. It reports a detection limit of 10 ppm (0.00001%) and verification of asbestos types, after separation, was done by optical microscopy.

This method also stated the following: “Electron Microscopy examination employing selected area electron diffraction and/or x-ray emission spectrography may be required in order to specifically identify small fibrous particulates”. The Colorado School of Mines recognized that TEM would be needed to identify for small particles.

Nowhere in this report was there even a suggestion by the Colorado School of Mines that their double density heavy liquid method, for sample preparation, for both chrysotile and amphibole asbestos, was anything but a sound scientific method.

⁸ December 27, 1973, Colorado School of Mines protocol entitled “A procedure to Examine Talc for the Presence of Chrysotile and Tremolite-Actinolite Fibers” Herman Ponder Director, Jerry Krause Senior Scientist and James Link Director Mining Division.

In fact, this sample preparation was approved and signed off by the following individuals from the Colorado School of Mines Research Institute: Herman Ponder, Director, James M. Link, Director Mining Division, and Jerry Krause, Senior Scientist Mining Division.

In the Introduction Section, the second paragraph states the Following;

*"As the impurity level becomes very low ($<<1\%$), it is necessary to examine increasing amounts of sample in order to detect the impurity. **As a result of the requirement to detect the proverbial "needle in a haystack,"** we have evolved a procedure which preconcentrates the impurities prior to examination. The net effect is that a large initial sample is fractioned in order to reject the majority from further examination.*

This was the same reason that MAS decided to use heavy liquid separation in late 2016 for cosmetic talc analysis as described above by the Colorado School of Mines.

Johns-Manville

Another indication of how confident the Colorado School of Mines was in their double density separation method, they informed Johns-Manville that the thought this heavy liquid separation method they developed, was good enough to be considered for a patent (JNJMX68_000007044 to 000007046).

In an October 29, 1973 letter from V.E Wolkodoff of Johns-Manville to Mr. Caneer, Colorado School of Mines, in response to a phone call from Mr. Caneer, Mr. Wolkodoff writes the following:

"Specifically, we were interested in your advanced technology used to separate felted masses of asbestos by heavy liquid separation" preparatory to staining of chrysotile by iodine as worked out by Morton and Baker of Johns-Manville".

Mr. Wolkodoff further writes, *"I understand your position completely on specific techniques being worked for other companies which are proprietary and, as you had indicated, will probably be patented."*

This letter confirms CSM was both developing this sample preparation method for J&J, and thought it was such an advancement in talc sample preparation technology for PLM analysis, they were considering to protect it with a patent.⁹

With that said, there no indication or documents that J&J's CSM double density talcum powder sample preparation method was ever patented, or shared with the FDA when they struggled with

⁹ October 29, 1973 letter from V.E Wolkodoff of Johns-Manville to Mr. Caneer, Colorado School of Mines.

their own development of a concentration method, or over a period of 50 to 60 years, there is no evidence that J&J ever had their main outside QA labs (McCrone or the R.J. Lee Group) use the much superior CSM sample preparation method, when they were analyzing J&J's talcum powder by XRD, PLM and or TEM for asbestos. The lack of use of the CSM sample preparation method by these two outside labs, explains why hundreds, if not thousands of J&J's talc sample analysis for asbestos analysis were found to be non-detects by the McCrone and RJ Lee labs.

I believe the reason that the CSM talc sample concentration preparation method for chrysotile and amphibole asbestos, was never used by J&J, can be summed up by the following statements by Dr. Robert Rolle of J&J in two documents. The first document is a May 22, 1973 Report entitled "Proposed Specs for Analyzing Talc for Asbestos". On the third page concerning Dr. Pooley's preconcentration method for tremolite, Dr. Rolle states, "This technique has not been written up yet, but evidently when applied to Vermont talc, 0.5% of the tremolite-type is found." Dr. Nashed of J&J received this report on May 23, 1973 (JNJAZ56_000001892 to 1989)¹⁰

"The limitation of this method is that it may be too sensitive."

The second document is a February 18th, 1975 memo to Dr. Rolle where he states, "I have also enclosed our test method for the proposed Xray technique which was drawn up by Boots Ltd in conjunction with Dr. Pooley" (JNJNL61_0000062953)¹¹

"We deliberately have not included a concentration technique as we felt it would not be in worldwide company interest to do this."

Physical Prosperities of Tremolite & Anthophyllite

In the December 27, 1973 Colorado School of Mines Research report, it is interesting that tremolite was detected in the plus 200 minus 325 samples, but not in the minus 325. These findings are consistent with the Pang et al. publication in 1987.¹² For this study, they spiked talc with tremolite (1 and 0.1%) and ground these samples for two size ranges; 1) 50% was minus 325 and 2) 100% minus 325.

The results showed that for the TEM analysis (100 grid openings) the 1% spiked tremolite sample, at 50% minus 325, the number of tremolite fibers detected was 1,592, and for the 100% minus 325, the number of tremolite fibers was reduced to 91 structures or 5% detected.

¹⁰ May 22, 1973 Report where the Subject, entitled "Proposed Specs for Analyzing Talc For Asbestos".

¹¹ February 18th, 1975 memo to Dr. Rolle.

¹² Thomas W.S. Pang, et al., "Determination of tremolite Asbestos in Talc Powder Samples" Ann. Occup. Hyg., Vol. 31, No. 2, pp 219-225, 1987.

For the 0.1 wt. percent, for the TEM analysis (100 grid openings) the 0.1 % tremolite spiked sample at 50% minus 325, the number of tremolite fibers detected was 88 and for the 100% minus 325, the number of tremolite fibers was reduced to 0 structures detected.

What is important about this study, is first that the tremolite used was characterized by the authors as tremolite asbestos/asbestiform due to the aspect ratio. Second, the asbestos fibers/talc spiked samples were ground so that there were two different particle size populations for two sample sets, 1st set, 50% of the sample would pass through a 325 mesh per inch sieve (45 µm opening), 2nd set, 100% of the sample would pass through the 325 mesh.

The Pang publication showed that when the talc was ground to the point that the size of the talc particles was small enough that 100% of the powder went through a 325 mesh it either greatly reduced (1.0% spiked sample) or eliminated (0.1%) is consistent with what Colorado School of Mines reported to J&J in their April 2, 1973 Protocol.

The reason for the tremolite asbestos being ground up is due the physical properties of tremolite asbestos, as well as anthophyllite asbestos, where both tremolite and anthophyllite have both low tensile strengths causing (brittle), and not flexible like chrysotile, and to a lesser degree, amosite and crocidolite.¹³ Since tremolite asbestos is brittle, the grinding to a minus 325 mesh size, by both the CSM and the Pang research, simply broke the tremolite fibers/bundles into non-fibrous particles.

The CSM results also showed that chrysotile was not affected when ground to a minus 325 mesh size because chrysotile has high tensile strength, good flexibility and is the reason that most all asbestos-containing cloth is woven out of chrysotile and not ever from tremolite or anthophyllite asbestos.

This discussion goes to the whole issue of the general geological definition of “asbestiform” that appears in many of the standard TEM protocols, including the ASTM D5755-09 dust method that I was the primary author of the ASTM D5755-09 protocol.¹⁴ This general definition is as follows:

“asbestiform-a special type of fibrous habit in which the fibers are separable into thinner fibers and ultimately into fibrils. This habit accounts for greater flexibility and higher tensile strength than other habits of the same mineral.”

This is only a general definition that a geologist might be interested in when evaluating a potential asbestos mine, since the more fibrous the asbestos deposit, the more economical value the mine would have.¹³ The economic value which depends on the grading of the asbestos where the most

¹³ M.A. Vos, Asbestos in Ontario, Industrial Mineral Report, Ontario Department of Mines and Northern Affairs, Ontario, Canada 1971.

¹⁴ ASTM D5755-09 Dust Method

important factors are fiber or fiber length, tensile strength, flexibility, and spinnability among others, as shown in the Table 5.

Table 5
Physical Properties of Asbestos
M.A. Vos, Asbestos in Ontario

Asbestos Type	Tensile strength (PSI)	Flexibility	Spinnability
Chrysotile	80,000-100,000	High	Very Good
Amosite	16,000 - 90,000	Good	Good
Crocidolite	100,000-300,000	Good	Good
Tremolite solid solution series	<1,000 - 8,000	Poor	Poor
Anthophyllite	4,000 or less	Poor	Poor

As the above table shows, the physical properties of tremolite, and anthophyllite asbestos have low tensile strength, both poor flexibility and spinnability, as compared to the other three asbestos types found in asbestos added products, and yet are regulated asbestos.

In a recent publication by Germine & Puffer entitled “Anthophyllite Asbestos from Staten Island, New York: Longitudinal Fiber Splitting”, concluded that the low quality characteristics of anthophyllite asbestos from the Staten Island mine, are consistent with the anthophyllite asbestos of the Finland mine.¹⁵ These characteristics include low aspect ratios, longitudinal splitting rather than crystal growth and “rather brittle such that they could not be woven in the manner of high quality chrysotile.” Besides another research group verifying that anthophyllite asbestos is brittle causing low tensile strength, not flexible or separated into single fibrils, would not meet the disputed general geological asbestiform definition for commercial asbestos added products, but they also state in the last sentence of their paper “anthophyllite and amosite fibers are not asbestiform like chrysotile fibers but are never less potentially dangerous.”

If this asbestiform definition was meant to be more than a general geological one, then the various analytical methods, using this definition, would have incorporated into the analytical methods, how to measure the tensile strength or flexibility of the microscopic asbestos fibers and bundles. Of course, the methods do not provide a means to measure flexibility and tensile strength since that type of measurement is impossible to accomplish by either PLM or TEM. Also, none of these

¹⁵ Mark Germine and John H. Puffer, “Anthophyllite asbestos from Staten Island, New York: Longitudinal fiber Splitting”, Archives of Environmental & Occupational Health, (2021) <https://doi.org/10.1080/19338244.2021.1873095>

analytical methods define what high tensile strength is, or how many measurements constitute a population.

Other Asbestos Concentration Methods for Cosmetic Talc

Yardley LTD. Method

A J&J produced document (JNJ00026450 to 4509 **redacted**) that also has a Bate stamp number DX8011.0010 to .0010 **un-redacted**) entitled "A Method for the Separation of Impurities from Talc", is a double density separation sample preparation method that is very similar to the CSM double density sample preparation method.¹⁶ The primary differences involves the density for the heavy liquid that was used. Where the CSM method uses 2.65 g/cc for the chrysotile and >2.90 g/cc for the amphibole asbestos, the Yardley method uses 2.69 g/cc for chrysotile and 2.83 g/cc for amphibole asbestos. Also, the Yardley method uses a centrifuge speed of 3,000 rpm for 5 minutes, the CSM method uses a centrifuge speed of 800 rpm for two intervals of 30 minutes. The 1991 published Blount HLS sample preparation method for amphibole asbestos, uses 2.81 g/cc and a centrifuge speed of 7,000 rpm for 10 minutes.

Each of these heavy liquid separation methods are using slightly different HL density liquids and different centrifuge speeds and times. The main point of this is that scientists are using different HL densities and centrifugation times that work best for them. There is no right or wrong, the only thing important is that heavy liquid separation of asbestos from talcum powder is a well-researched method developed by J&J almost 50 years ago, published by Dr. Blount in 1990/91, and is also an International Standards Organization protocol (ISO 22262-1 &2) method.

I will also be relying on the 21 J&J produced documents for asbestos concentration methods in talc, that was produced in total to J&J (Exhibit 3) to my 9/28/18 deposition in the Hayes case.¹⁷

MAS' PLM Analysis of Chrysotile in Cosmetic Talc

The PLM analysis performed by MAS, showed that the JBP container that was analyzed by the CSM sample preparation method with HLS was positive for chrysotile asbestos.

MAS' PLM analysis was able to both detect and determine the amount of chrysotile bundles in the sample with HLS because MAS uses PLM microscopes that has higher resolution and analytical

¹⁶ A Method for the Separation of Impurities from Talc

¹⁷ Index for 21 J&J produced asbestos concentration documents in W. Longo 9/28/2018 Dona Hayes deposition (Exhibit 3).

sensitivity capabilities, than your standard PLM microscope which is more suited for analyzing asbestos added products (AAP).

In AAP (chrysotile) samples as compared to cosmetic talc samples, has a much higher population of very large size chrysotile bundles and orders of magnitude higher concentration levels of chrysotile in these types of products.

The PLM analysis of AAP samples does not challenge the resolution of the typical PLM microscope optics, or burden the microscopist with very long sample analysis times. For example, in most PLM labs, including MAS's, the typical time required for an experienced PLM microscopist to analyze asbestos added products (AAP), where the majority of the AAP samples contain approximately 10 to 25 % asbestos, will only take about 15 and 20 minutes to complete the analysis.

With a cosmetic talc sample on the other hand, a typical PLM analysis at MAS, for either chrysotile or amphiboles asbestos, would routinely take 2 to 4 hours for a positive sample and a minimum of 20 minutes to hour for a negative sample, if there are no pigments in the sample. In order to both detect and analyze the small size of the chrysotile bundles (10 to 20 μm in length), that are typically found in cosmetic grade talcum powder, through the use of dispersion staining, the PLM microscope must have "flat" objective lenses, and a HD video camera attached to the PLM microscope that is interfaced to a high definition monitor.

The MAS PLM microscopes are state-of-the-art Leica DM2700P PLM microscopes, where all of the objective lens, including the 10X central stop dispersion lens are the flat type, also known as infinity lens, LED light source, and are coupled with state-of-the-art HD digital camera and 37" HD monitor. To detect these size chrysotile bundles, it is highly recommended that this type of PLM microscope setup should be used for the PLM analysis of cosmetic talc samples.

It is also my opinion that the PLM analysis must first analyze prepared talcum powder standards, containing UCC SG-210 or RG-144 Calidria chrysotile, to become familiar with both the size of chrysotile structures found in cosmetic talc, as well as the difference in the refractive indices for the chrysotile as compared chrysotile added products.

Both the RG-144 and RG-210 Calidria chrysotile and the chrysotile found in the talcum powder samples typically shows central stop dispersion colors (CSDS) from blues (α) to golden yellows (γ) in 1.550 liquid, and blue to a dark gold in 1.560 liquid. MAS has been reporting this range of CSDS colors for the chrysotile detected in the cosmetic talc samples for almost two years using 1.550 RI liquid. During that time, defendant experts, retained by a number of cosmetic talc manufactures,

and have repeatedly testified that MAS' CSDS findings are not appropriate for chrysotile. Therefore, in their opinions, MAS was and has been misidentifying fibrous/platy talc edge or cellulose as chrysotile.

For this set of samples, MAS used higher RI fluid (1.560) as discussed by Dr. Gunter, Alan Segrave (defense experts) in their expert reports, and Dr. Su's photo-shop expert report, where they stated that to verify that MAS is identifying chrysotile, we need to use a higher RI fluid than 1.550. For this PLM analysis of JBP sample, instead of using 1.550 RI fluid, MAS used 1.560 RI fluid to further verify the chrysotile findings in the cosmetic talc. The results showed that the primary difference between the two RI liquids is that the measured refractive indices for the 1.560 RI Fluid were closer together for the alpha and gamma directions, which caused the BIR calculations to be all in LOW range with an overall average of 0.007 (See Table 3), versus 0.010 to 0.013 range typically seen using 1.550 RI fluid.

Additionally, Dr. Gunter, while working as a defense expert for Gold Bond defense council, analyzed samples of RG-144 and SG-210 Calidria chrysotile, that MAS provided to him, and confirmed in a recent deposition that "Calidria chrysotile can produce a range of CDSC colors from bluish to golden-yellow in 1.550 liquid."¹⁸ Dr. Gunter's Calidria chrysotile results are consistent with our laboratories findings, which validates our PLM chrysotile findings in the cosmetic talc samples. Dr. Gunter's testimony about his Calidria CSDS results is in direct contradiction to his original criticism of the "yellow" dispersion color, as well as Dr. Sanchez and Mr. Seagrave's past testimony on this issue.

It is my opinion, that when these defense experts were testifying that our Laboratory was misidentifying fibrous talc or talc plates on edge for chrysotile based on the CSDS "yellow color", as it turns out, the opposite was true, they were the ones misidentifying chrysotile as fibrous talc or talc plates on edge.

ISO-PLM Chrysotile Refractive Index Ranges

As shown in Table 3, the range of measured refractive indexes for the detected chrysotile bundles in the JBP sample was 1.564-1.568 (parallel) and 1.557 to 1.564 (perpendicular) for the average CSM method.

Shown in Table 6 are the range of RIs for the 4 chrysotile bundles that were recorded as examples of the chrysotile detected in the JBP sample that were prepared by the CSM method (with HLS).

¹⁸ Deposition of Dr. Mickey Gunter, Woods, Jesse & Sarah vs. Kolmar Laboratories Inc. et al. Supreme Court in the State of New York, County of Monroe, #E202000384

Table 6
Chrysotile
Range of Parallel and Perpendicular RIs

Chrysotile Bundle No.	RI Fluid	CSM PLM (with HLS) Parallel RI	CSM PLM (with HLS) Perpendicular RI	BIR Calculations $\gamma - \alpha$
M71614-001	1.560			
1		1.564	1.561	0.003
2		1.565	1.561	0.003
3		1.568	Avg. 1.559	0.009
4		Avg. 1.567	Avg. 1.562	0.005
		Avg. 1.566	Avg. 1.561	0.005

In addition to the chrysotile analysis using 1.560, fibrous talc in sample M71614-001 was analyzed with 1.560, that was collect from the pellet produced during the CSM sample preparation phase. The results of the analysis are shown in Table 7. The fibrous talc analysis can be found in Section 6 of this report.

Table 7
Fibrous Talc
Range of Parallel and Perpendicular RIs

Chrysotile Bundle No.	RI Fluid	Talc PLM (with HLS) Parallel RI	Talc PLM (with HLS) Perpendicular RI	BIR Calculations $\gamma - \alpha$
M71614-001	1.560			
1		>1.595	<1.550	>0.045
2		>1.600	<1.550	>0.050
3		>1.595	<1.550	>0.045
		Avg. >1.597	Avg. <1.550	>0.047

Birefringence Measurements

The key optical property to differentiate fibrous talc from chrysotile asbestos, when using the PLM method, is determining the difference in the birefringence (BIR) value between these two elongated minerals. Most PLM analysts will just use the PLM cross-polar condition to visually estimate the magnitude of the BIR (Low, Moderate or High) by the amount of brightness and change in wavelength colors that are observed.

This visual estimate of the amount of birefringence is typically done under cross-polar conditions and is a subjective interpretation by the PLM analyst, therefore, can lead to errors. A more accurate determination of BIR is to calculate the numerical BIR value by simply subtracting the measured perpendicular RI from the measured parallel RI ($n_{||} - n_{\perp}$).

The subtracted BIR results give the analyst a numerical birefringence (BIR) value that is either classified as **Low (<0.01)**, **Moderate (0.01 to 0.05)** and **High (>0.05)**.

Fibrous talc and/or talc plates on edge will have a calculated BIR value that is typically at the high end of Moderate (0.045) to greater than 0.05 which is in the High BIR range. Chrysotile on the other hand, will have BIR values that range from the upper end of the Low range to the lower end of the Moderate range. The average calculated range BIRs, for the detected chrysotile bundles from the JBP sample for CSM PLM method was **0.003 to 0.009 (avg. 0.005)** which falls in the low end of BIR classifications. The fibrous talc analysis from the same sample had an average BIR that was at least 0.050 or the High range.

The BIR difference between fibrous talc and chrysotile, as demonstrated by MAS, is also verified by the EPA in their 600/R-93/116 PLM methodology document as shown in Table 2-2, page 21.

Table 2-2, "Optical Properties of Asbestos Fibers", provides four sets of refractive indexes measured from chrysotile bundles that have an overall average BIR of 0.011. This is in good agreement with the overall **MAS BIR avg. of 0.006** for the chrysotile bundles detected in the JBP sample for CSM sample preparation method.

In that same table, EPA published a range chrysotile BIR's of 0.004 to 0.017 (Low to moderate) with an average of 0.011. This BIR range reported by EPA, was from the Maximum and Minimum values obtained from references 2, 11, 12, and 18 located in Section 2.2.

The EPA R93 protocol also provides RI and BIR data for both fibrous talc and Flat cellulose Ribbons that can be found in their Table 2.5. For the RIs of fibrous talc example, EPA reports refractive index 1.600-1.540 with a measured BIR of 0.06, and for cellulose ribbons, the reported EPA RI's are 1.580-1.530 with a measured BIR of 0.05 as shown in Table 8, which agrees with the BIR calculated for the fibrous talc in the JBP sample itself.

Table 8
EPA-R93: Optical Properties of Selected Fibers
Fibrous Talc & Cellulose Ribbons

Fiber Type	RI Parallel/Perpendicular	BIR Calculations
Fibrous Talc	1.600-1.540	0.060 "High"
Cellulose	1.580-1.530	0.050 high end of Moderate

In summary, this data demonstrates that the reported chrysotile bundles in the JBP container sample analyzed by MAS have both the appropriate range of refractive indexes and BIR demonstrating that chrysotile asbestos was correctly identified in the container sample.

Potential Asbestos Exposure to JBP:**M71614-001:**

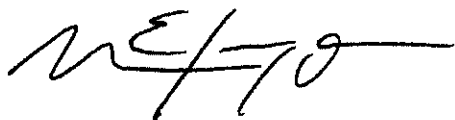
The average chrysotile bundle results for PLM analysis shows that one gram of 1.5 oz. (42 g) JBP contained an average of 56,000 chrysotile bundles per gram of talcum powder.

Multiplying 56,000 chrysotile bundles by 42 grams would equal approximately 2,352,000 chrysotile fibers/bundles, on average, in the one (1.5 oz.) JBP container.

Based on these results, it would be my opinion that the application of the talcum powder found in JBP container will cause significant exposure, over background, to chrysotile asbestos to individuals like Mr. Valadez, who used JBP brand talcum powder products for their intended purpose.

All of the opinions that I have stated in this report are held within a reasonable degree of scientific certainty and I reserve the right to supplement this report if any new information becomes available.

Sincerely,



William E. Longo, Ph.D.
CEO

Section 2

Materials Analytical Services, LLC.

CHAIN-OF-CUSTODY

CLIENT: Kazan, McClain, Satterley & Greenwood

CONTACT: Joe Satterley

PHONE: (510) 302-1000

CLIENT JOB NAME: A. Hernandez Valadez v. J & J

CLIENT JOB#: 14-2979

CLIENT DOC(S): Letter of transmittal

FAX NUMBER: (510) 835-4913

MAS JOB: M71614

LOGIN DATE: 1/26/2023

SUBMITTED BY: Joe Satterley

TRANSPORT: UPS

RECEIVED BY: Kathy Molyneaux

CONDITION: Good

MAS LOCATION: Rm 123DATE/BY: CT 1/26/2023PREP BY: CTDATE: 1/26-2/27/23ANALYSIS BY: PHDATE: 2/27-28/2023QC BY: PHDATE: 2/28/2023REPORT BY: AVDATE: 2-28-2023REVIEWED BY: AVDATE: 2-28-2023

FINAL DISPOSITION BY

LOCATION: Legal File Storage

DATE: _____

MAS # CLIENT ID VOLUME TYPE MATERIAL

MAS # CLIENT ID VOLUME TYPE MATERIAL

001 1

LOCATION Johnson's Baby Power Bottle, 1.5 oz.

SAMPLE(S) RETURNED BY: KV

DATE: _____

FEDEX TRACKING # _____

RECEIVED BY: 2-28-2023

DATE: _____

COMMENT PLM

Materials Analytical Services, LLC.

3945 Lakefield Court

Suwanee, Georgia 30024

(770) 866-3200

1/13/14 Revision 0

M71614

Page 1 of 1

Materials Analytical Services, LLC.

CHAIN-OF-CUSTODY

CLIENT: Kazan, McClain, Satterley & Greenwood

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CLIENT JOB#: 14-2979

CLIENT DOC(S): Letter of transmittal

FAX NUMBER: (510) 835-4913

MAS JOB: M71614

LOGIN DATE: 1/26/2023

SUBMITTED BY: Joe Satterley

TRANSPORT: UPS

RECEIVED BY: Kathy Molyneaux

CONDITION: Good

MAS LOCATION: Rm 125DATE/BY: CT 1/26/2023PREP BY: CTDATE: 1/26-2/27/23ANALYSIS BY: J6CDATE: 2-28-2023QC BY: J6CDATE: 2-28-2023REPORT BY: AKDATE: 2-28-2023REVIEWED BY: AKDATE: 2-28-2023

FINAL DISPOSITION BY

LOCATION: Left Pile Storage

DATE: _____

MAS # CLIENT ID VOLUME TYPE MATERIAL

MAS # CLIENT ID VOLUME TYPE MATERIAL

001 1

LOCATION Johnson's Baby Power Bottle, 1.5 oz.

SAMPLE(S) RETURNED BY: _____

DATE: _____

FEDEX TRACKING # _____

RECEIVED BY: _____

DATE: _____

COMMENT TGM

Materials Analytical Services, LLC.

3945 Lakefield Court

Suwanee, Georgia 30024

(770) 866-3200

1/13/14 Revision 0

M71614

Page 1 of 1



**Kazan, McClain, Satterley
& Greenwood**
A Professional Law Corporation
KAZANLAW.COM

January 25, 2023

Via UPS

Dr. William Longo
MAS
3945 Lakefield Court
Suwanee, GA 30024

Re: *Anthony Hernandez Valadez v. Johnson & Johnson, et al.*
Alameda County Superior Court Case No. 22CV012759

Dear Dr. Longo:

Enclosed please find one Johnson's Baby Powder bottle purchased on September 20, 2022 near Mr. Valadez' home in Merced, California. In 2022, Johnson's Baby Powder is still being sold. Please call me upon receipt.

Very truly yours,

/s/ Joseph Satterley

Joseph Satterley

JS:js

Rec'd
1/26/2023
K. Indymov

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		Room Type: HSE		
		Number of Guests: 0		
		Rate: \$0.00	Clerk: JKL	
Arrive: 20Sep22	Time: 06:26PM	Depart: 20Sep22	Time: 06:26PM	Folio Number: 23793

DATE	DESCRIPTION	CHARGES	CREDITS
20Sep22	Market Sundries	3.19	
20Sep22	Sales Tax	0.28	
20Sep22	Master Card		3.47
Card #: MCXXXXXXXXXXXX3508/XXXX			
Card Type: MASTERCARD Card Entry: CHIP Approval Code: 60261Q			
App Label: Mastercard AID: A0000000041010			

BALANCE:		0.00
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OAKLAND, CA 94606

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1 LBS 1 OF 1 SHIP TO: DRAZMIN SOLORZANO-ARROYO 5103021000 1015 KAZAN MCCLEIN SATTERLEY & GREE JACK LONDON MARKET OAKLAND CA 94607 DR. WILLIAM LONGO 5103021013 MAS 3945 LAKEFIELD COURT SUWANEE GA 30024-1256	GA 300 9-09 1 UPS NEXT DAY AIR TRACKING #: 1Z 863 722 01 9852 0234	1 BILLING: P/P Case Name: Valadez CS 23.0.00. WNTNV50 4.0A 01/2023*
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Section 3

PLM Analysis

MATERIALS ANALYTICAL SERVICES, LLC
PLM ANALYSIS

Proj#-Spl# M71614-001CSM Analyst Paul Hess Date 2/27/2023
 ClientName Kazan, McClain, Satterley & Greenwood ClientSpl 1
 Location Johnson's Baby Power Bottle, 1.5 oz.
 Type_Mat _____
 Gross debris on filter % of Sample 100
 Visual _____ Temp ($\pm 1^{\circ}\text{C}$) 22

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology	wavy		
Pleochroism	none		
Refract Index	**		
α / γ (nm)	650 510		
Sign [*]	positive		
Extinction	parallel		
Birefringence	*		
Melt	no		
Fiber Name	Chrysotile		

ASBESTOS MINERALS

EST. VOL. %

Chrysotile..... 0.002 to 0.004
 Amosite.....
 Crocidolite.....
 Tremolite/Actinolite.....
 Anthophyllite.....

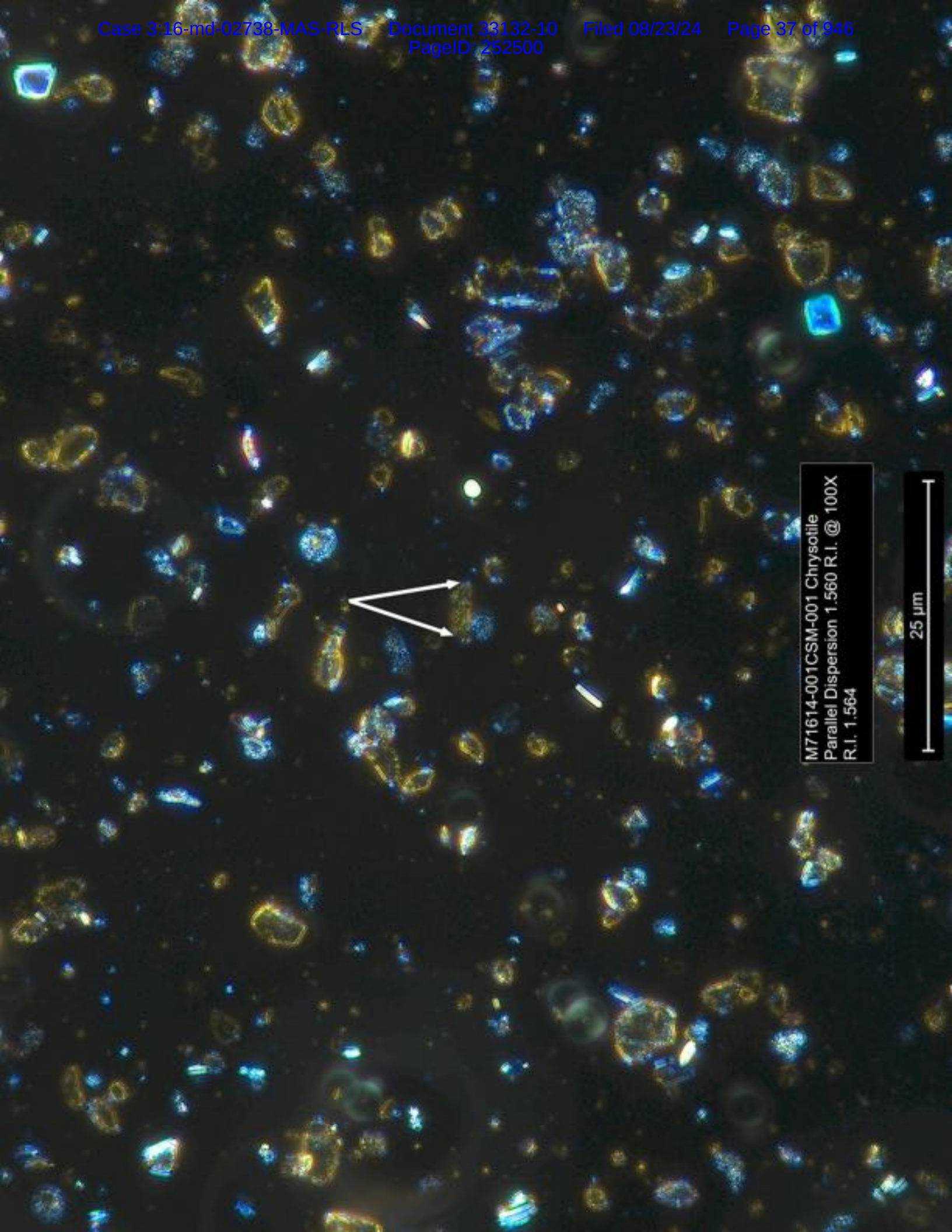
OTHER FIBROUS COMPONENTS

Talc-fibrous ***

NON FIBROUS COMPONENTS

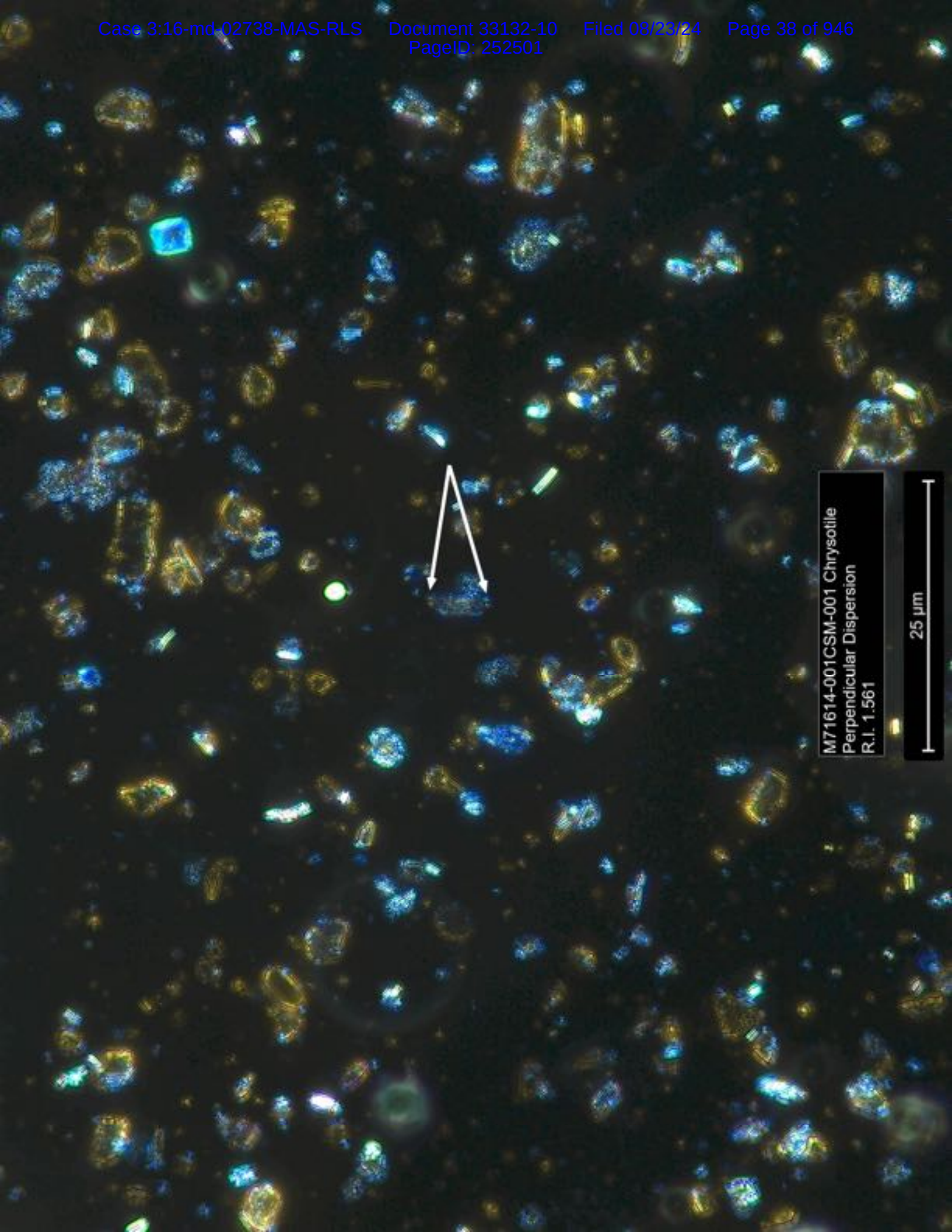
Talc	X
Particulate	X
_____	_____

Comments Chrysotile asbestos observed. ** Refractive indices parallel ranged 1.564(550nm) to 1.568(510nm). Refractive indices perpendicular range 1.557(650nm) to 1.564(550nm). *** Trace fibrous Talc observed. *Birefringence from low to moderate. X=Materials Detected. Six Chrysotile structures, inclusive of those documented by photograph, counted in 30 fields of view. Equates to 0.3 structure per square millimeter.



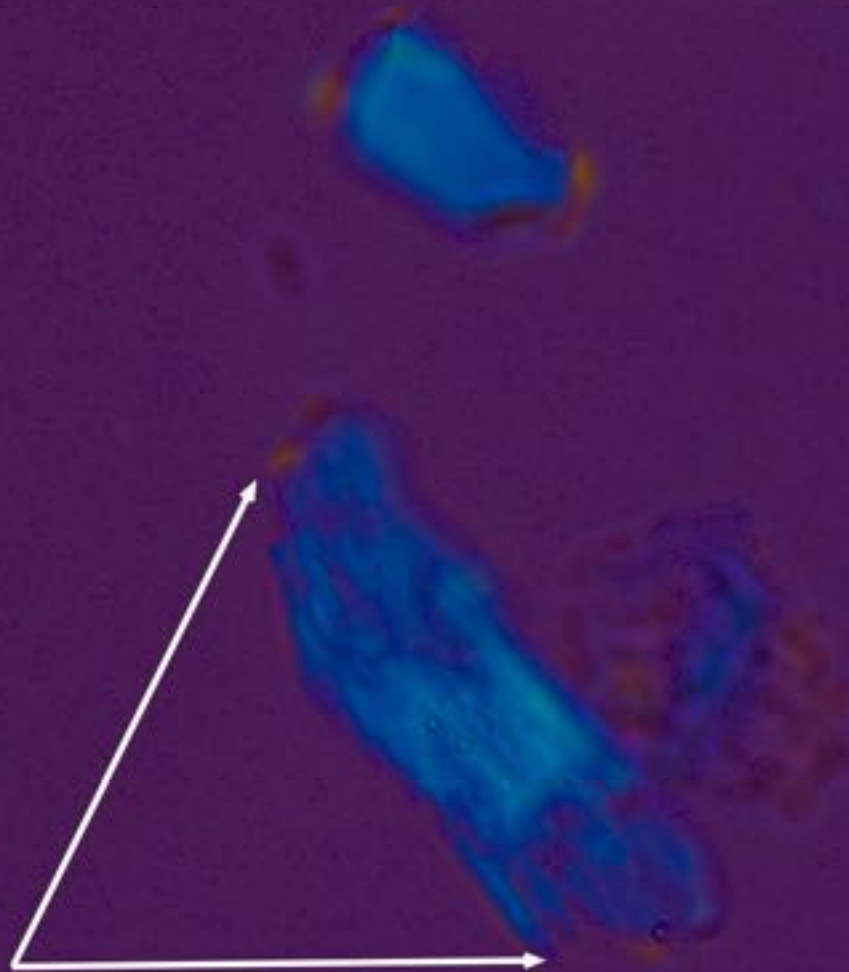
M71614-001CSM-001 Chrysotile
Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.564

25 μ m



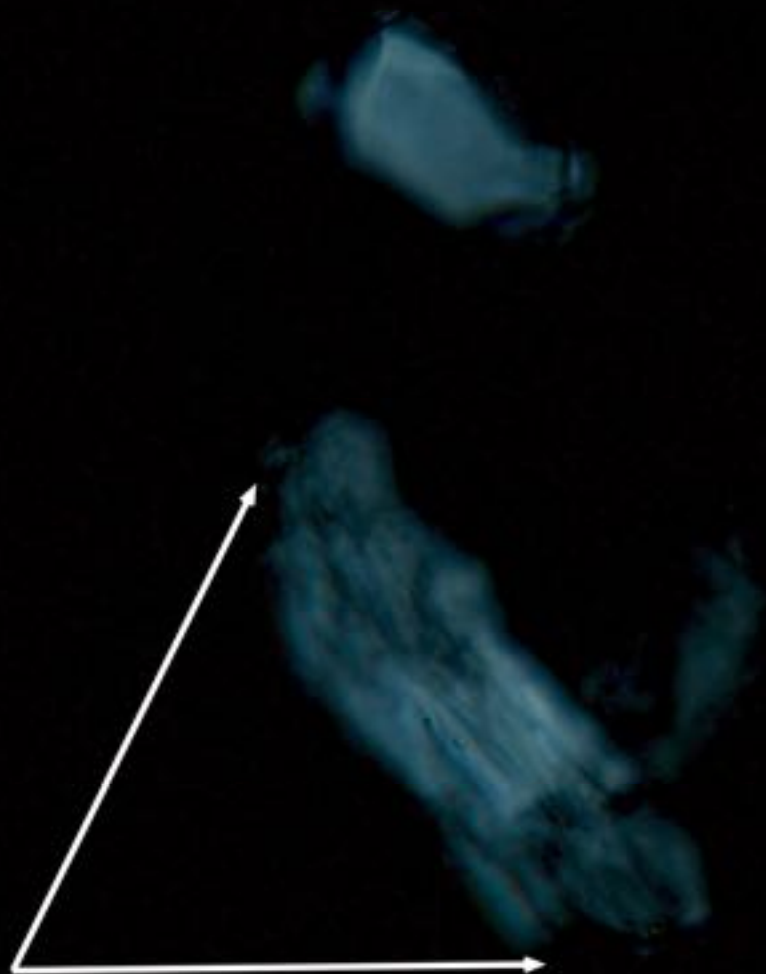
M71614-001CSM-001 Chrysotile
Perpendicular Dispersion
R.I. 1.561

25 μ m



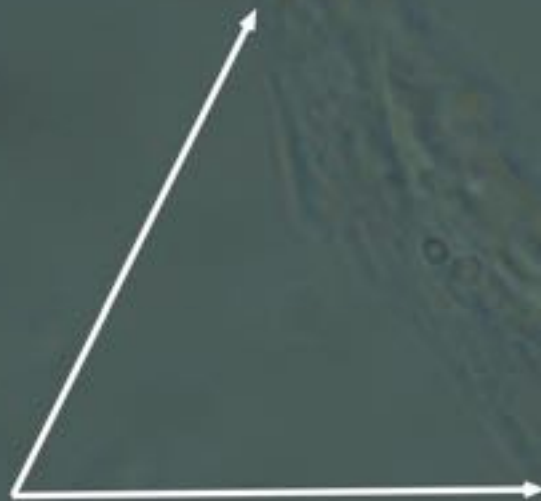
M71614-001CSM-001 Chrysotile
Elongation @ 630X

2.5 μ m



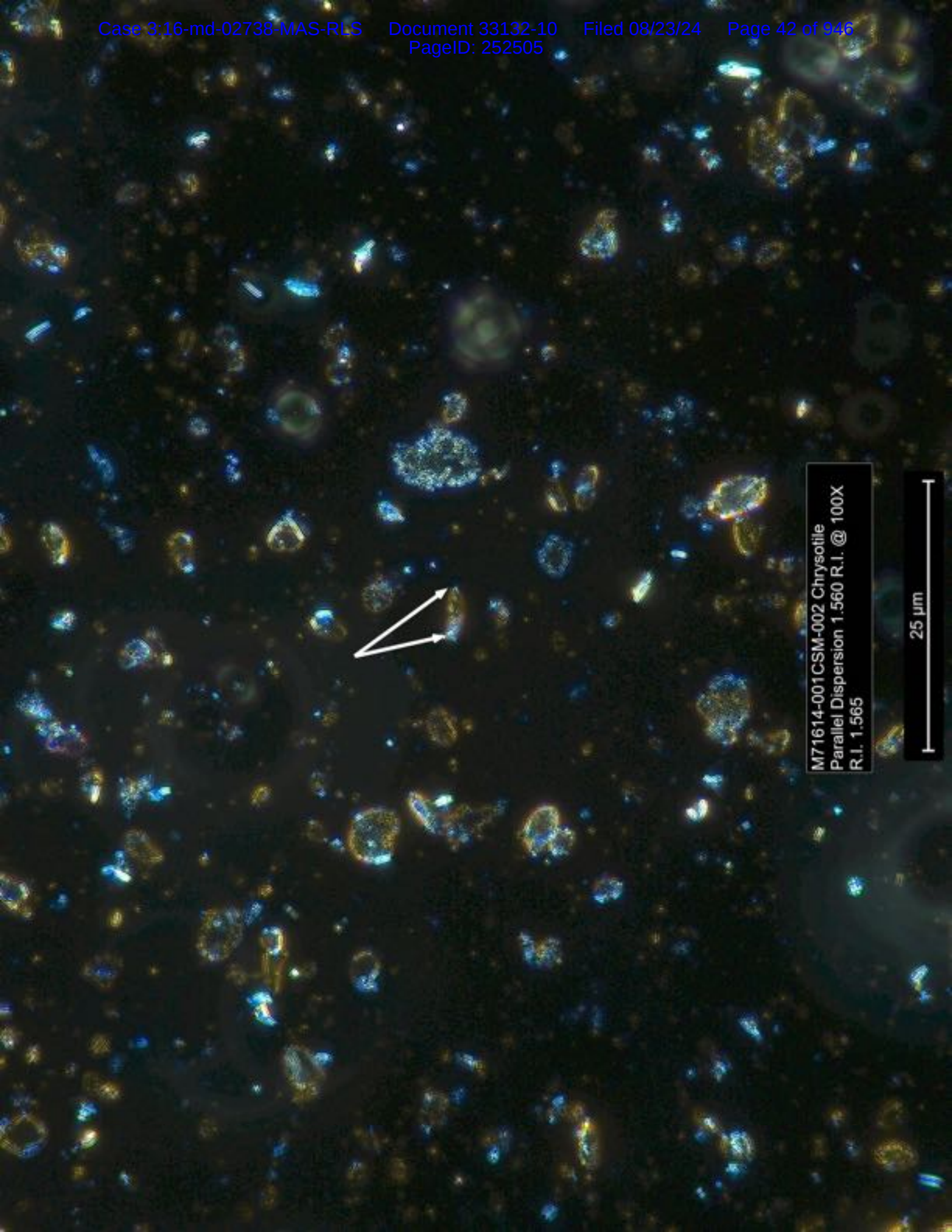
M71614-001CSM-001 Chrysotile
Crossed Polars @ 630X

2.5 μm



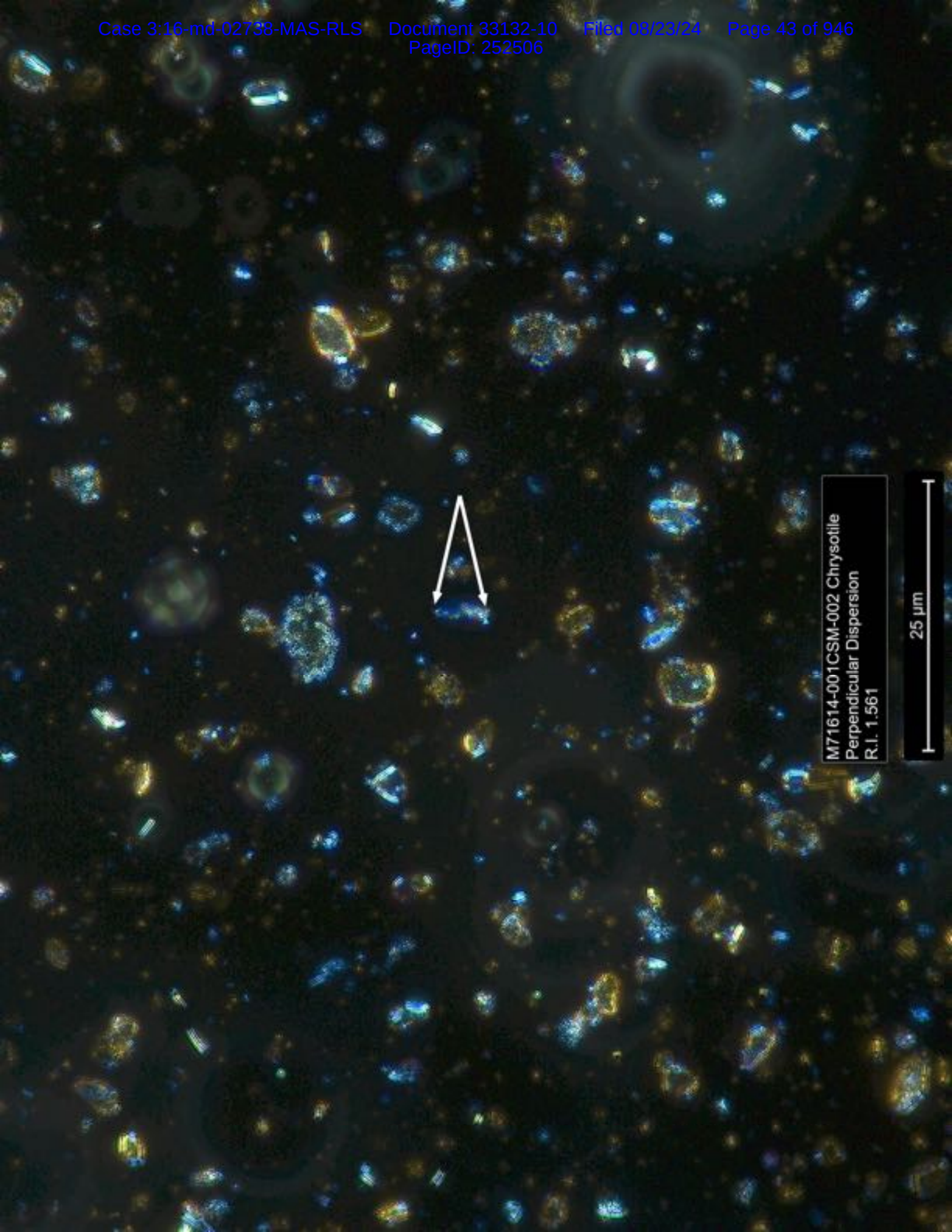
M71614-001CSM-001 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X

2.5 μ m



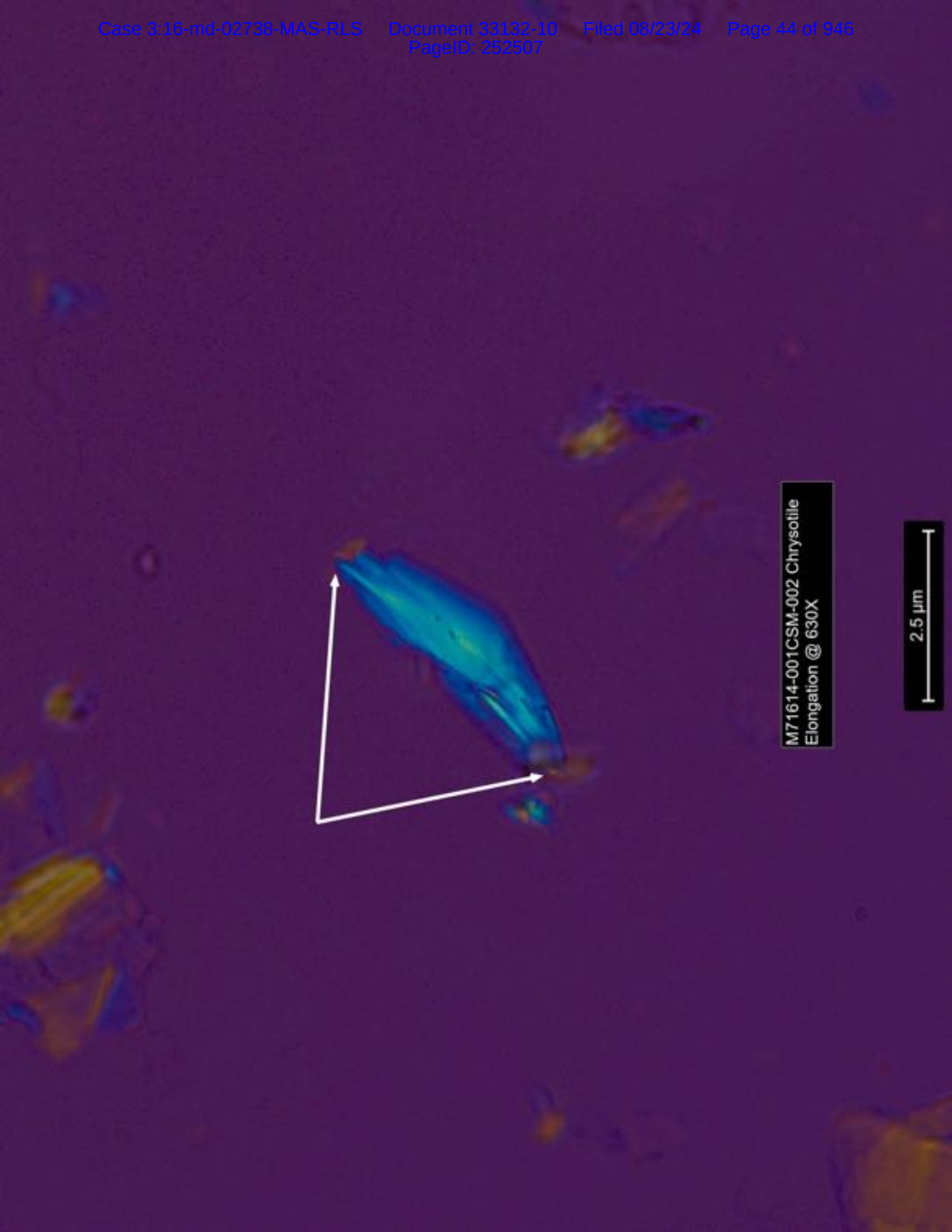
M71614-001CSM-002 Chrysotile
Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.565

25 μ m



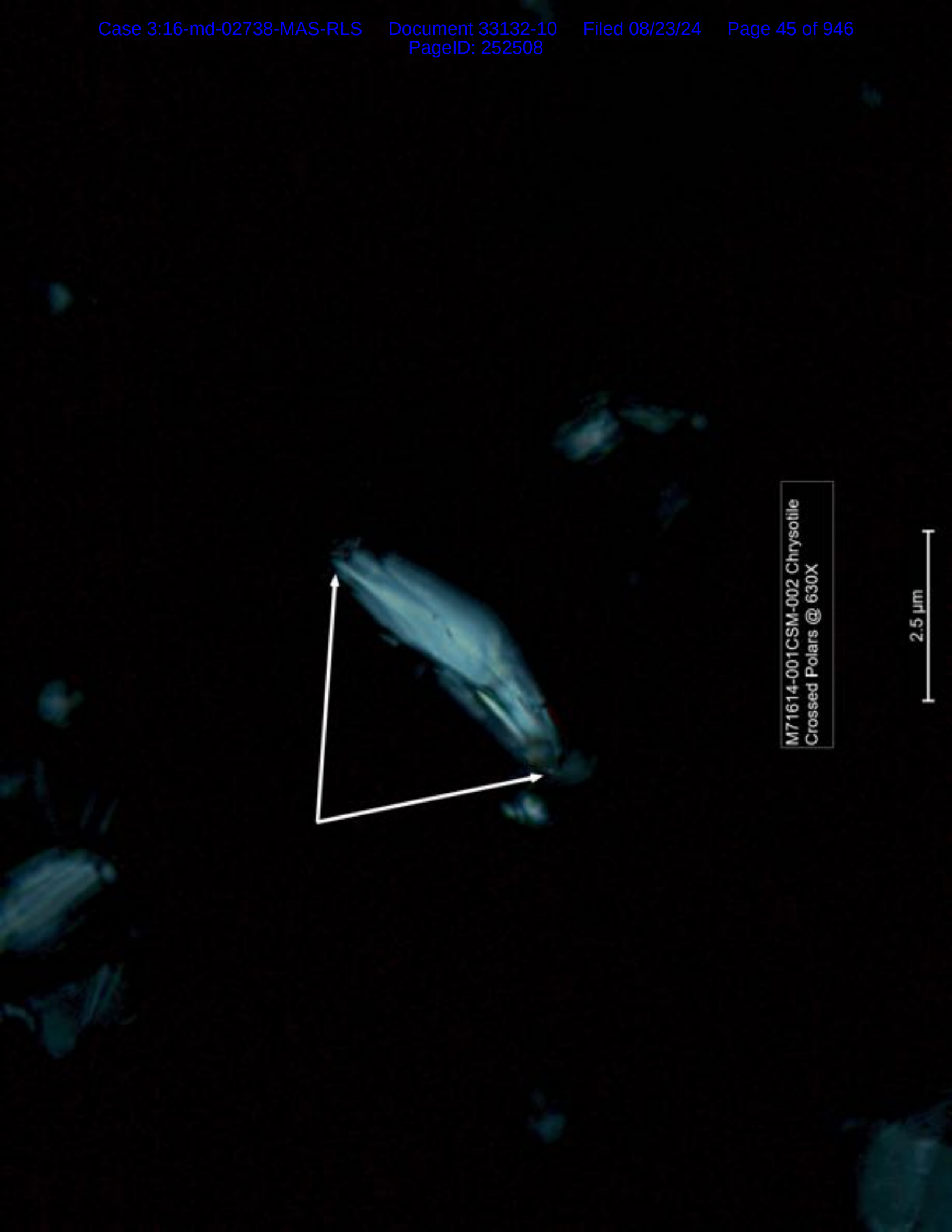
M71614-001CSM-002 Chrysotile
Perpendicular Dispersion
R.I. 1.561

25 μ m



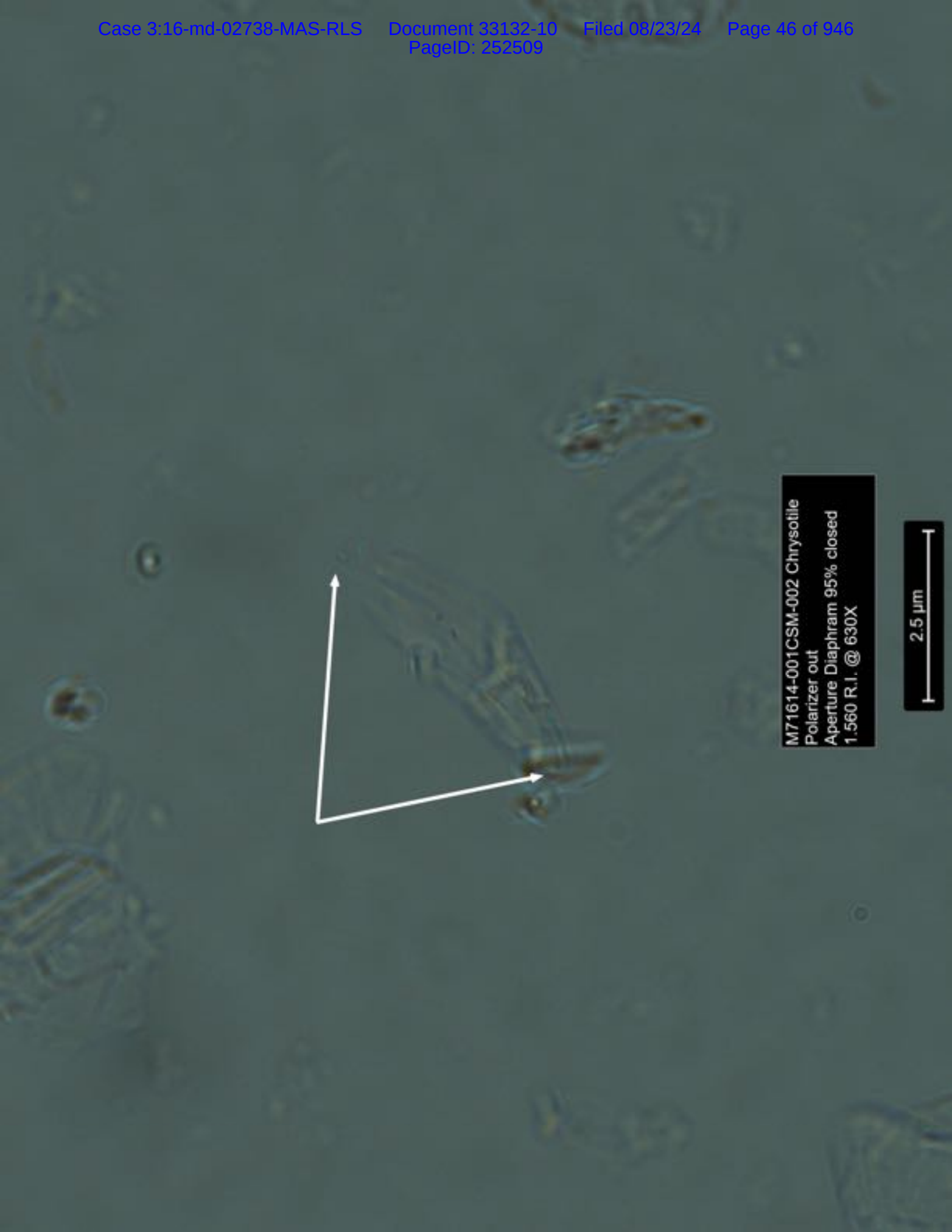
M71614-001CSM-002 Chrysotile
Elongation @ 630X

2.5 μ m



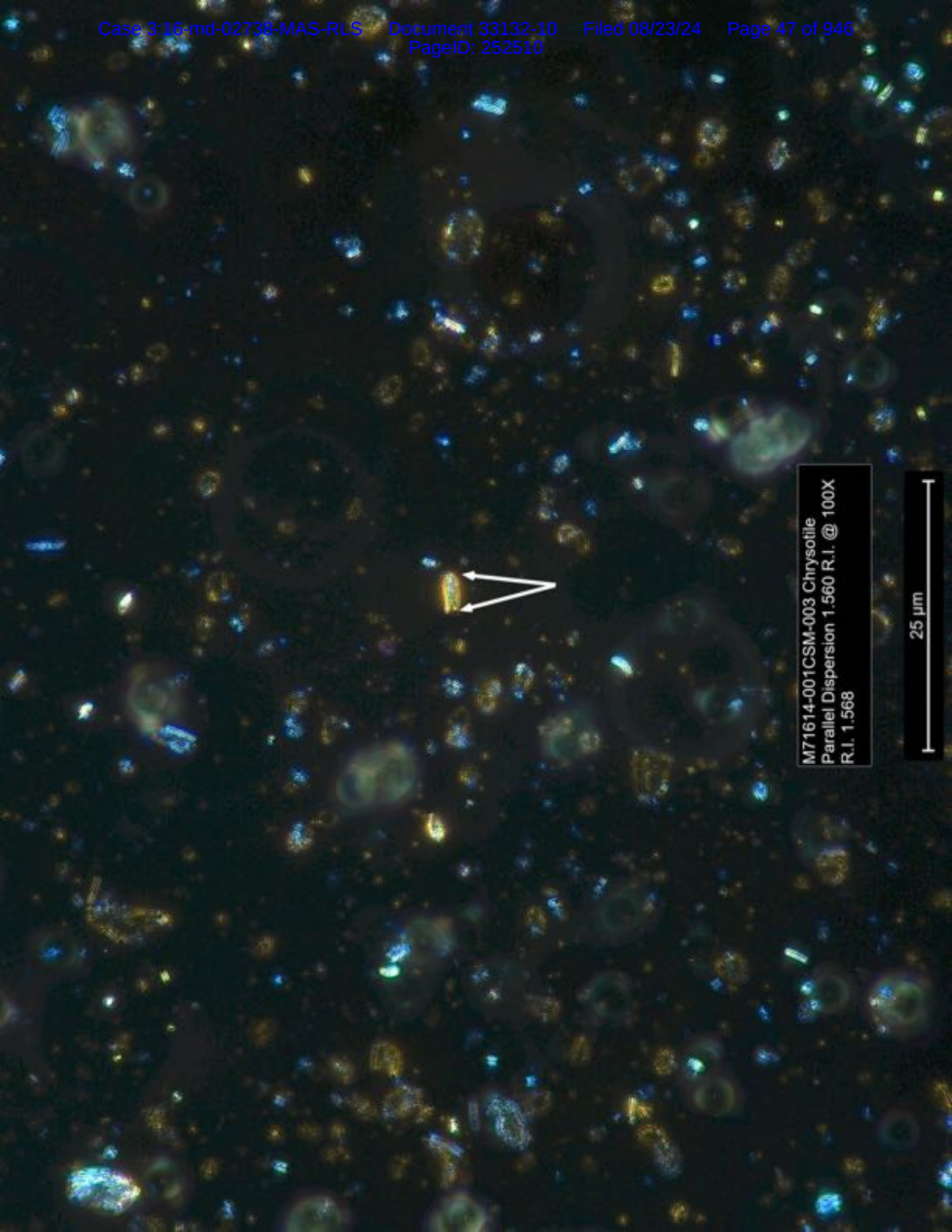
M71614-001CSM-002 Chrysotile
Crossed Polars @ 630X

2.5 μ m



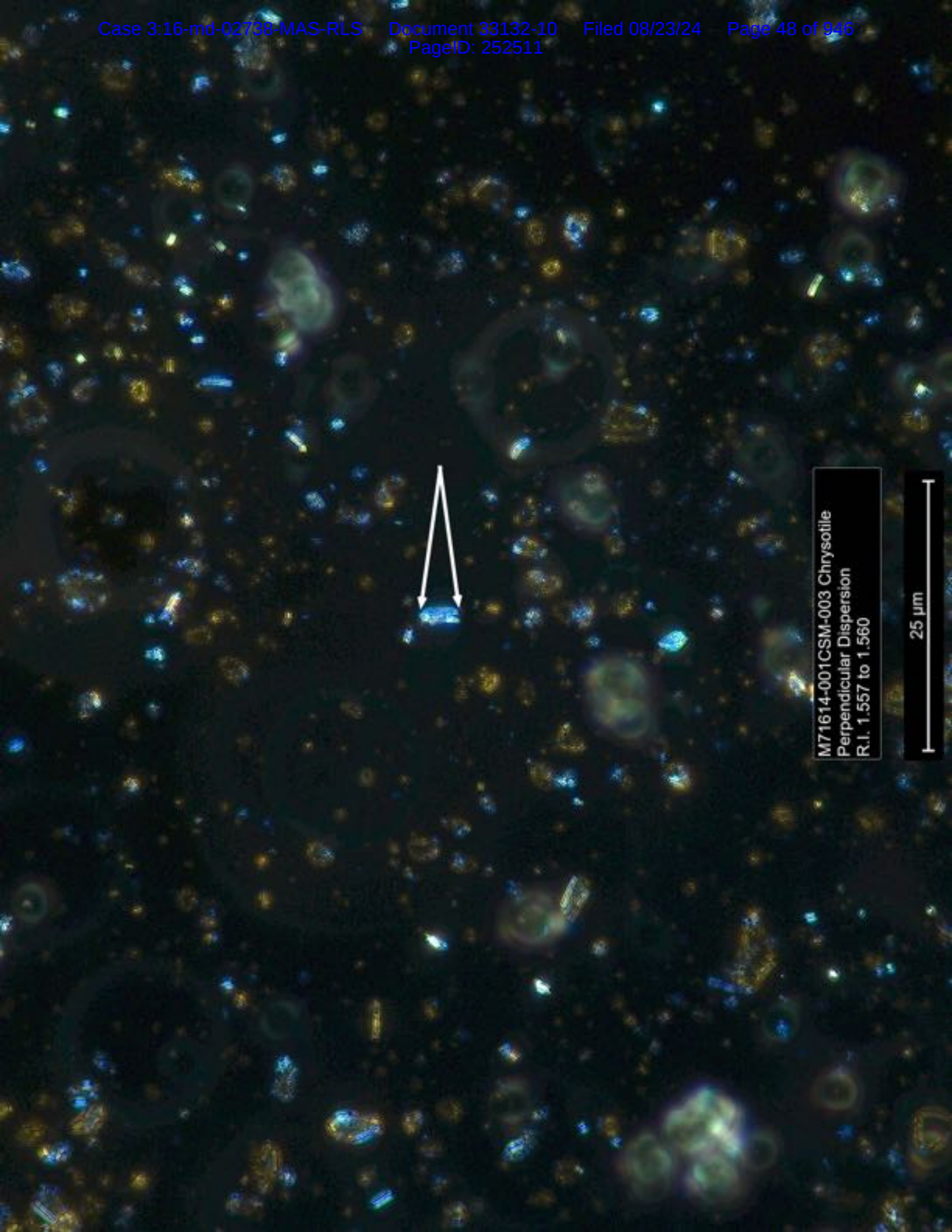
M71614-001CSM-002 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X

2.5 μ m



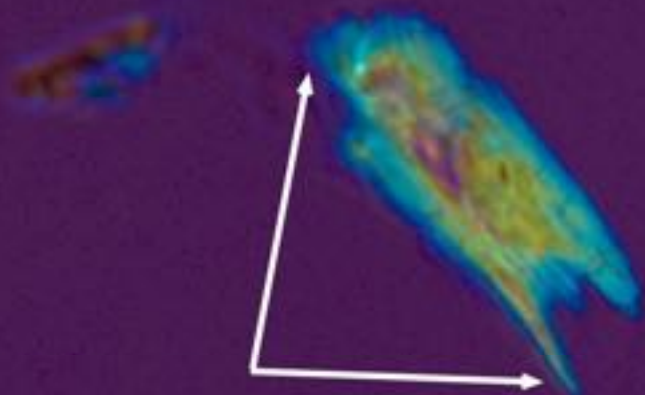
M71614-001CSM-003 Chrysotile
Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.568

25 μ m



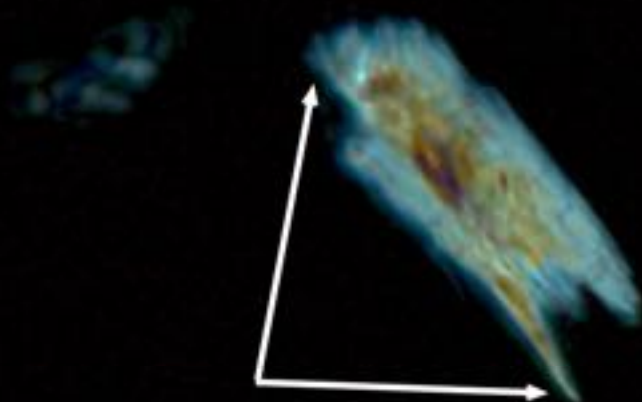
M71614-001CSM-003 Chrysotile
Perpendicular Dispersion
R.I. 1.557 to 1.560

25 μ m



M71614-001CSM-003 Chrysotile
Elongation @ 630X

2.5 μ m



M71614-001CSM-003 Chrysotile
Crossed Polars @ 630X

2.5 μm



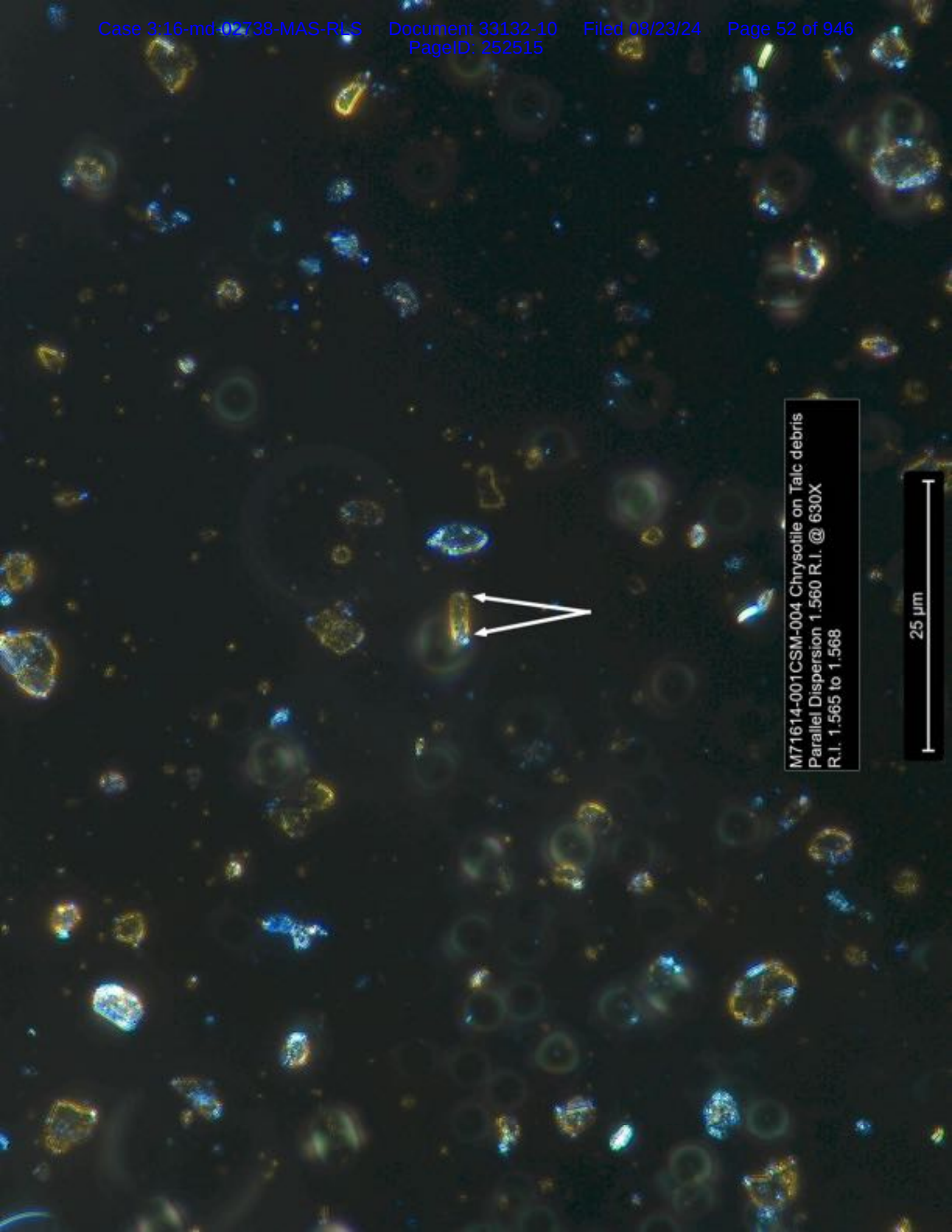
A polarized light micrograph showing numerous elongated, needle-shaped chrysotile fibers. The fibers exhibit characteristic pleural and basal faces. A white arrow points to a specific fiber in the center-left area. The background is a uniform light gray.

M71614-001CSM-003 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X



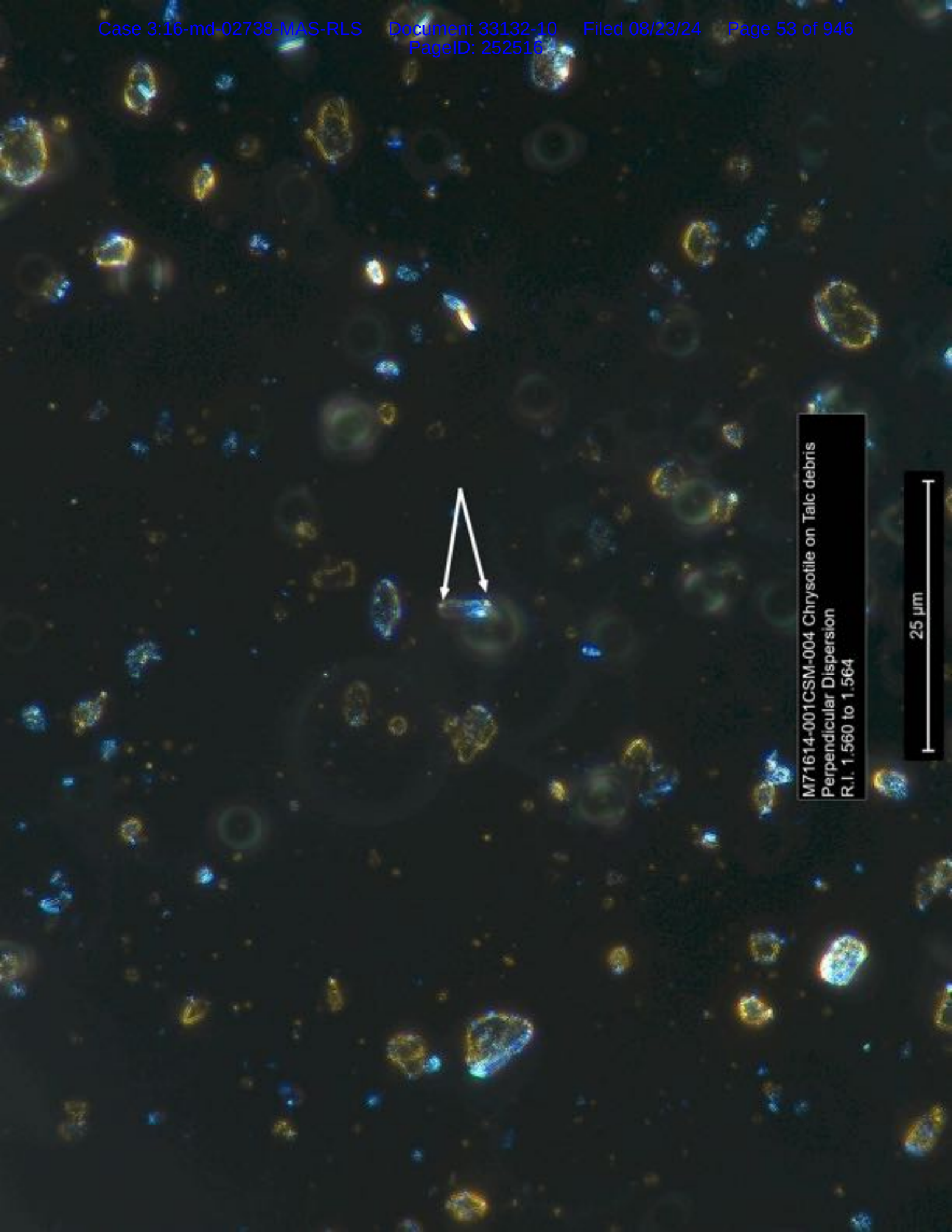
A horizontal scale bar with vertical end caps.

2.5 μm



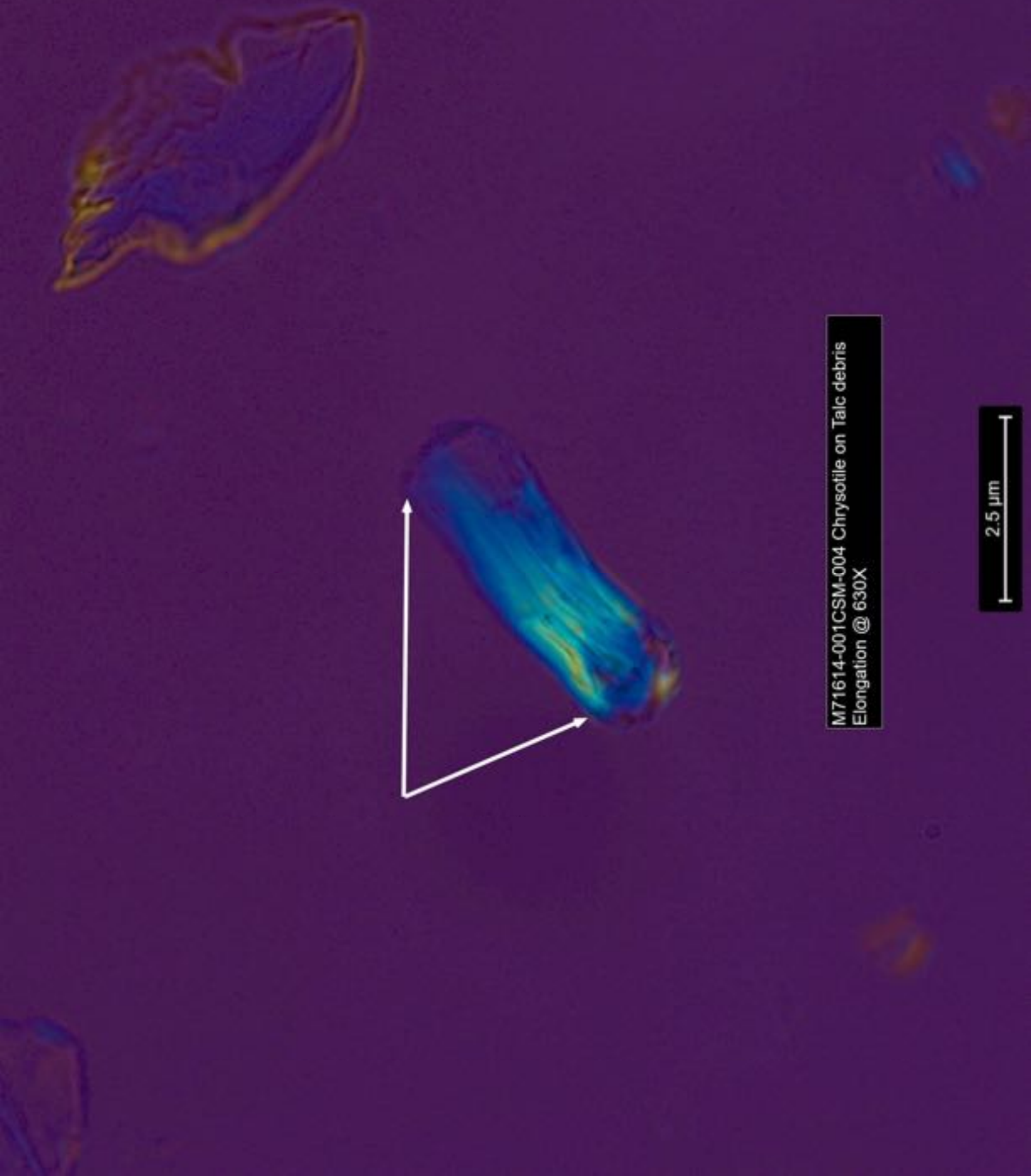
M71614-001CSM-004 Chrysotile on Talc debris
Parallel Dispersion 1.560 R.I. @ 630X
R.I. 1.565 to 1.568

25 μ m



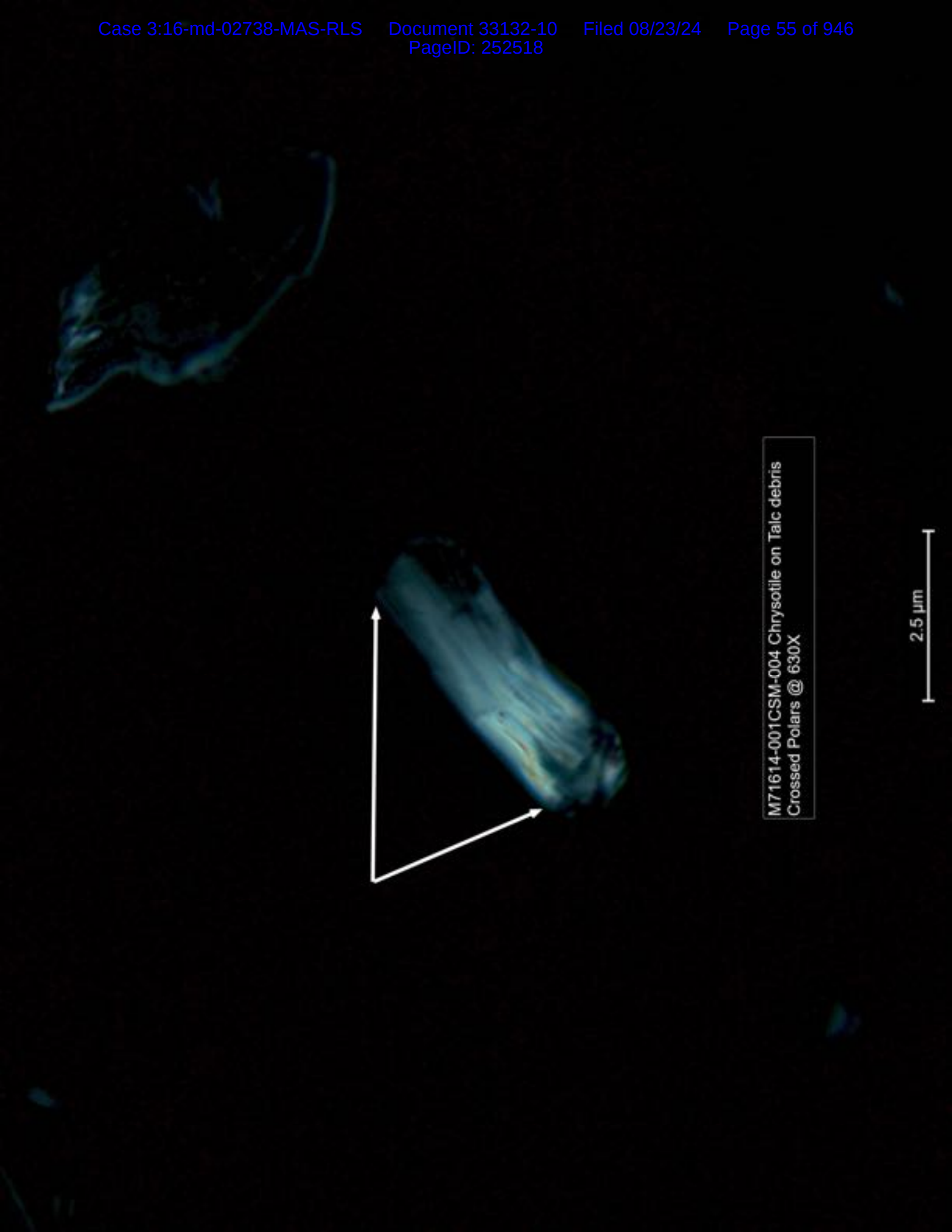
M71614-001CSM-004 Chrysotile on Talc debris
Perpendicular Dispersion
R.I. 1.560 to 1.564

25 μ m



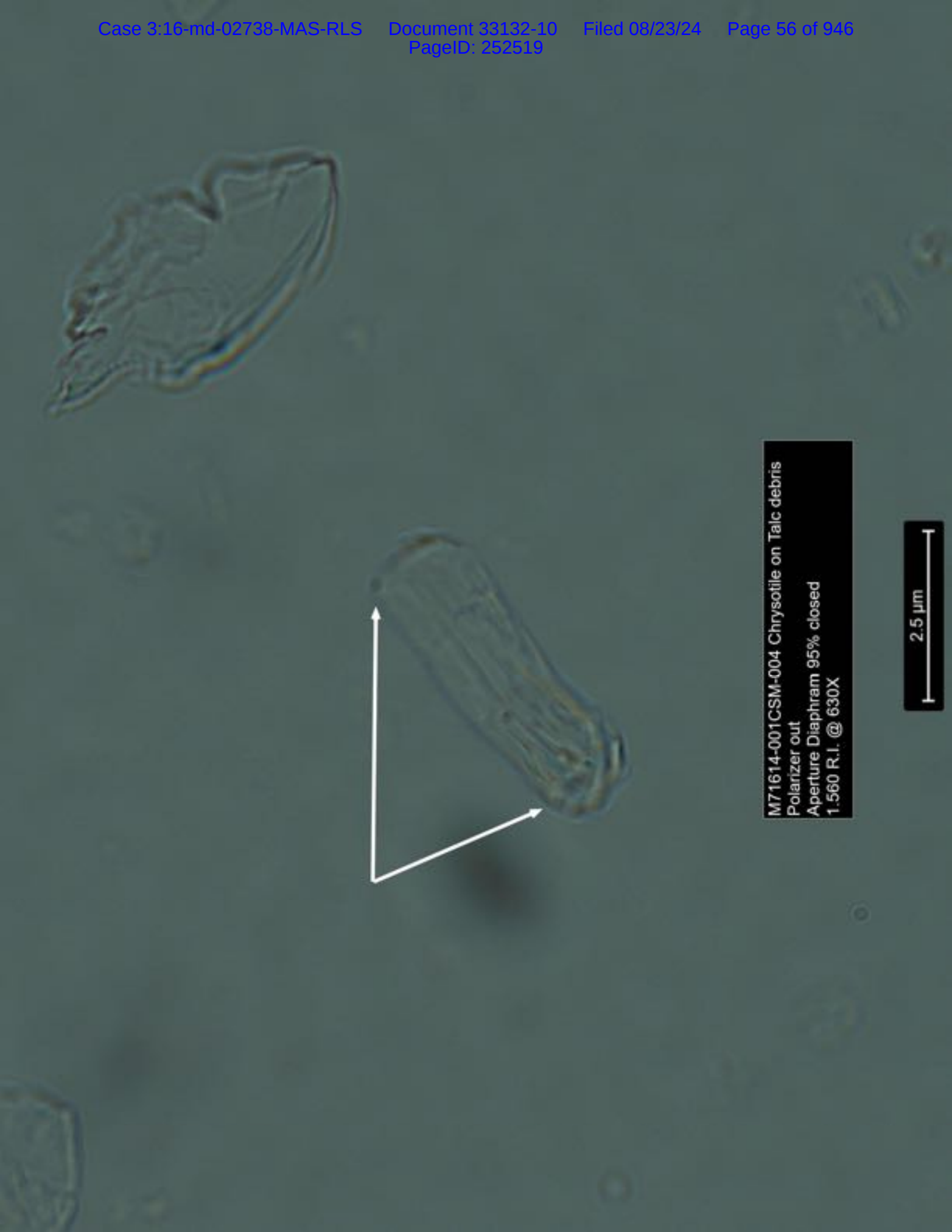
M71614-001CSM-004 Chrysotile on Talc debris
Elongation @ 630X

2.5 μ m



M71614-001CSM-004 Chrysotile on Talc debris
Crossed Polars @ 630X

2.5 μm



M71614-001CSM-004 Chrysotile on Talc debris
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X

2.5 μm

MATERIALS ANALYTICAL SERVICES, LLC
PLM ANALYSIS

Proj#-Spl# M71614-001ISONY Analyst Paul Hess Date 2/28/2023
ClientName Kazan, McClain, Satterley & Greenwood ClientSpl 1
Location Johnson's Baby Power Bottle, 1.5 oz.
Type_Mat _____
Gross debris on filter % of Sample 100
Visual _____ Temp (±1°C) 21

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology			
Pleochroism			
Refract Index			
α / γ (nm)			
Sign [^]			
Extinction			
Birefringence			
Melt			
Fiber Name			

ASBESTOS MINERALS

EST. VOL. %
NO ASBESTOS OBSERVED

Chrysotile.....
Amosite.....
Crocidolite.....
Tremolite/Actinolite.....
Anthophyllite.....

OTHER FIBROUS COMPONENTS

Talc-fibrous ***

NON FIBROUS COMPONENTS

Talc X
Particulate X

Comments X = Materials detected. Analyzed for regulated Amphiboles. No regulated Amphiboles observed. ***Trace fibrous Talc observed.

TEM Analysis

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-001		Grid Box #	8865	No. of Grids Counted	2
Analyst	Jayme Callan			Length	Width	G. O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	0.02122			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	30%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm²			1.166

Str. #	Grid Opening	Structure	Asbestos Type	Length	Width	Ratio	SAED	EDS
NSD	A1-A3							
NSD	A4							
NSD	A5							
NSD	A6							
NSD	A7							
NSD	A8							
NSD	A9							
NSD	B1							
NSD	B2							
NSD	B3							
NSD	B4							
NSD	B5							
NSD	B6							
NSD	B7							
NSD	B8							
NSD	B9							
NSD	B10							
NSD	C1							
NSD	C2							
NSD	C3							
NSD	C4							
NSD	C5							
NSD	C6							
NSD	C7							
NSD	C8							
NSD	C9							
NSD	C10							
NSD	F1							
NSD	F2							
NSD	F3							
NSD	F4							
NSD	F5							
NSD	F6							
NSD	F7							
NSD	F8							
NSD	F9							
NSD	F10							
NSD	G1							
NSD	G2							
NSD	G3							
NSD	G4							
NSD	G5							
NSD	G6							
NSD	G7							
NSD	G8							
NSD	G9							
NSD	G10							
NSD	I3							
NSD	I4							
NSD	I5							

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-001		Grid Box #	8865	No. of Grids Counted	2
Analyst	Jayme Callan			Length	Width	G. O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	0.02122			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	30%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm²			1.166

Str. #	Grid Opening	Structure	Asbestos Type	Length	Width	Ratio	SAED	EDS
NSD	A2-A1							
NSD	A2							
NSD	A3							
NSD	A4							
NSD	A5							
NSD	A6							
NSD	A7							
NSD	A8							
NSD	A9							
NSD	A10							
NSD	B1							
NSD	B2							
NSD	B3							
NSD	B4							
NSD	B5							
NSD	B6							
NSD	B7							
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NSD	D9							
NSD	F2							
NSD	F3							
NSD	F4							
NSD	F6							
NSD	F7							
NSD	F10							
NSD	H1							
NSD	H2							
NSD	H3							
NSD	H4							
NSD	H5							
NSD	I1							
NSD	I2							
NSD	I3							
NSD	I4							
NSD	I7							

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-001		Grid Box #	8865	No. of Grids Counted	2
Analyst	Jayme Callan			Length	Width	G. O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	0.02122			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	30%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm²			1.166

Str. #	Grid Opening	Structure	Asbestos Type	Length	Width	Ratio	SAED	EDS
--------	--------------	-----------	------------------	--------	-------	-------	------	-----

Org. Sample Wt.	Sample Wt. Post HL Separation
0.02122	0.02122 g
Percent of Orig. Post Separation	100 (%)
Wt. Of Sample Analyzed	0.00001908 g
Filter size	1297 mm ²
Number of Structures Counted	0 Str.
Structures per Gram of Sample	<52,000 Str./g

Detection Limit	5.24E+04	Str./g
Analytical Sensitivity	5.24E+04	Str./g

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PageID: 252525

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-001		Grid Box #	8865	No. of Grids Counted	2
Analyst:	Jayme Callan			Length	Width	G.O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	0.02122			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	30%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm ²			1.166

Str. #	Grid Opening	Str./Asb. Type	Length	Width	Ratio	SAED	EDS
NSD	A1-A3					No fibrous talc observed	

Section 4

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-000		Grid Box #	8860	No. of Grids Counted	2
Analyst:	Jayme Callan			Length	Width	G. O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	N/A			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	1%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm²			1.166

Str. #	Grid Opening	Structure	Asbestos Type	Length	Width	Ratio	SAED	EDS
NSD	E9-B1							
NSD	B2							
NSD	B3							
NSD	B4							
NSD	B5							
NSD	B6							
NSD	B7							
NSD	B8							
NSD	B9							
NSD	B10							
NSD	C1							
NSD	C2							
NSD	C3							
NSD	C4							
NSD	C5							
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NSD	D1							
NSD	D2							
NSD	D3							
NSD	D4							
NSD	D5							
NSD	D6							
NSD	D7							
NSD	D8							
NSD	D9							
NSD	D10							
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NSD	G7							
NSD	G8							
NSD	G9							
NSD	G10							
NSD	H1							
NSD	H2							
NSD	H3							
NSD	H4							
NSD	H5							
NSD	H6							
NSD	H7							
NSD	H8							
NSD	H9							
NSD	H10							

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-000		Grid Box #	8860	No. of Grids Counted	2
Analyst	Jayme Callan			Length	Width	G. O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	N/A			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	1%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm²			1.166

Str. #	Grid Opening	Structure	Asbestos Type	Length	Width	Ratio	SAED	EDS
NSD	E10-A1							
NSD	A2							
NSD	A3							
NSD	A4							
NSD	A5							
NSD	A6							
NSD	A7							
NSD	A8							
NSD	A9							
NSD	A10							
NSD	B1							
NSD	B2							
NSD	B3							
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NSD	B5							
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NSD	C3							
NSD	C4							
NSD	C5							
NSD	C6							
NSD	C7							
NSD	C8							
NSD	C9							
NSD	C10							
NSD	D1							
NSD	D2							
NSD	D3							
NSD	D4							
NSD	D5							
NSD	D6							
NSD	D7							
NSD	D8							
NSD	D9							
NSD	D10							
NSD	E1							
NSD	E2							
NSD	E3							
NSD	E4							
NSD	E5							
NSD	E6							
NSD	E7							
NSD	E8							
NSD	E9							
NSD	E10							

TEM Bulk Talc Structure Count Sheet						
Project/ Sample No.	M71614-000		Grid Box #	8860	No. of Grids Counted	2
Analyst:	Jayme Callan			Length	Width	G. O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	N/A			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	1%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm²			1.166

Str. #	Grid Opening	Structure	Asbestos Type	Length	Width	Ratio	SAED	EDS
--------	--------------	-----------	------------------	--------	-------	-------	------	-----

Org. Sample Wt.	Sample Wt. Post HL Separation
N/A	N/A
Percent of Orig. Post Separation	N/A (%)
Wt. Of Sample Analyzed	N/A
Filter size	1297
Number of Structures Counted	0
Structures per Gram of Sample	N/A

Detection Limit	N/A
Analytical Sensitivity	N/A

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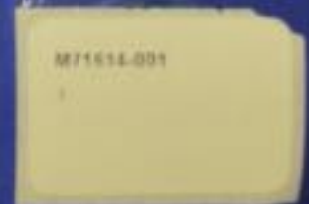
TEM Bulk Talc Structure Count Sheet

PageID: 252530

Project/ Sample No.	M71614-000		Grid Box #	8860	No. of Grids Counted	2
Analyst:	Jayme Callan			Length	Width	G.O. Area
Date of Analysis	2/28/2023		G. O. in microns =	108	108	11664
Initial Weight(g)	N/A			108	108	11664
Analysis Type	Post Separation Talc Analysis		Grid Acceptance	Yes	Average	11664
Scope No.	Accelerating Voltage	100 KV	Loading%	1%	G.O.s Counted	100
3	Screen Magnification	20 KX	Area Examined mm ²			1.166

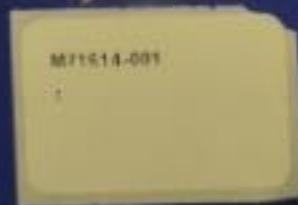
Str. #	Grid Opening	Str./Asb. Type	Length	Width	Ratio	SAED	EDS
NSD	E9-B1					No fibrous talc observed	

Section 5















M71514-001
1



M71514-001





M71614-001

U.S.A.

INCH



M71514-001
1





M71614-001

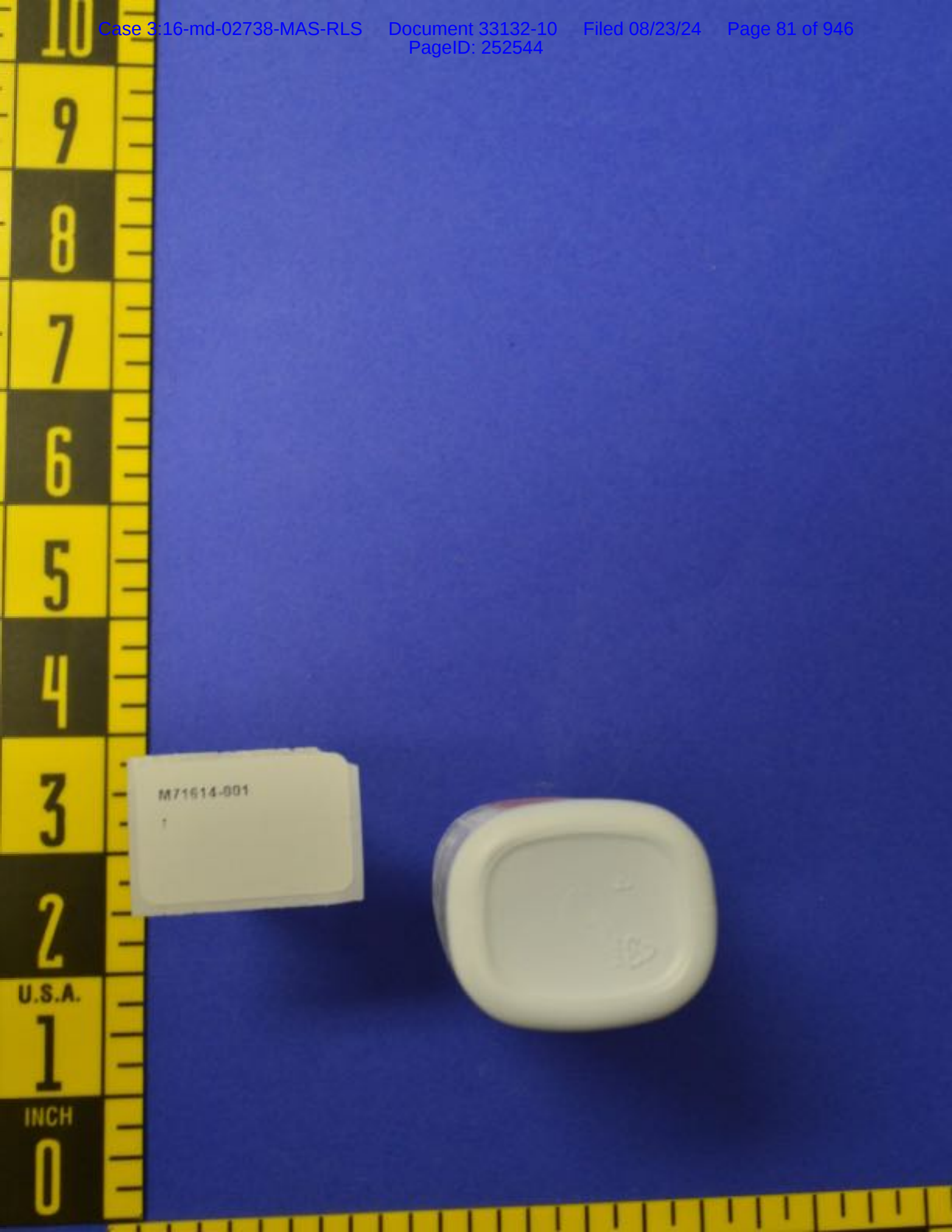
U.S.A.

INCH

M71614-001

1





M71614-001

U.S.A.

1

INCH

0

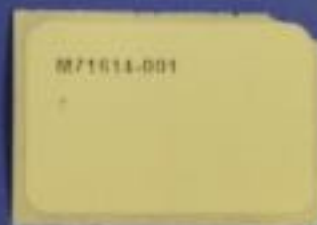
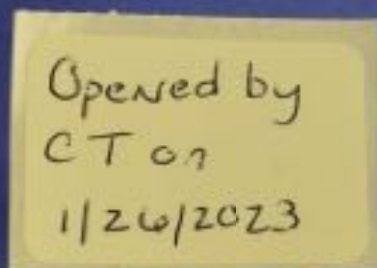


Opened by
CT on
1/26/2023

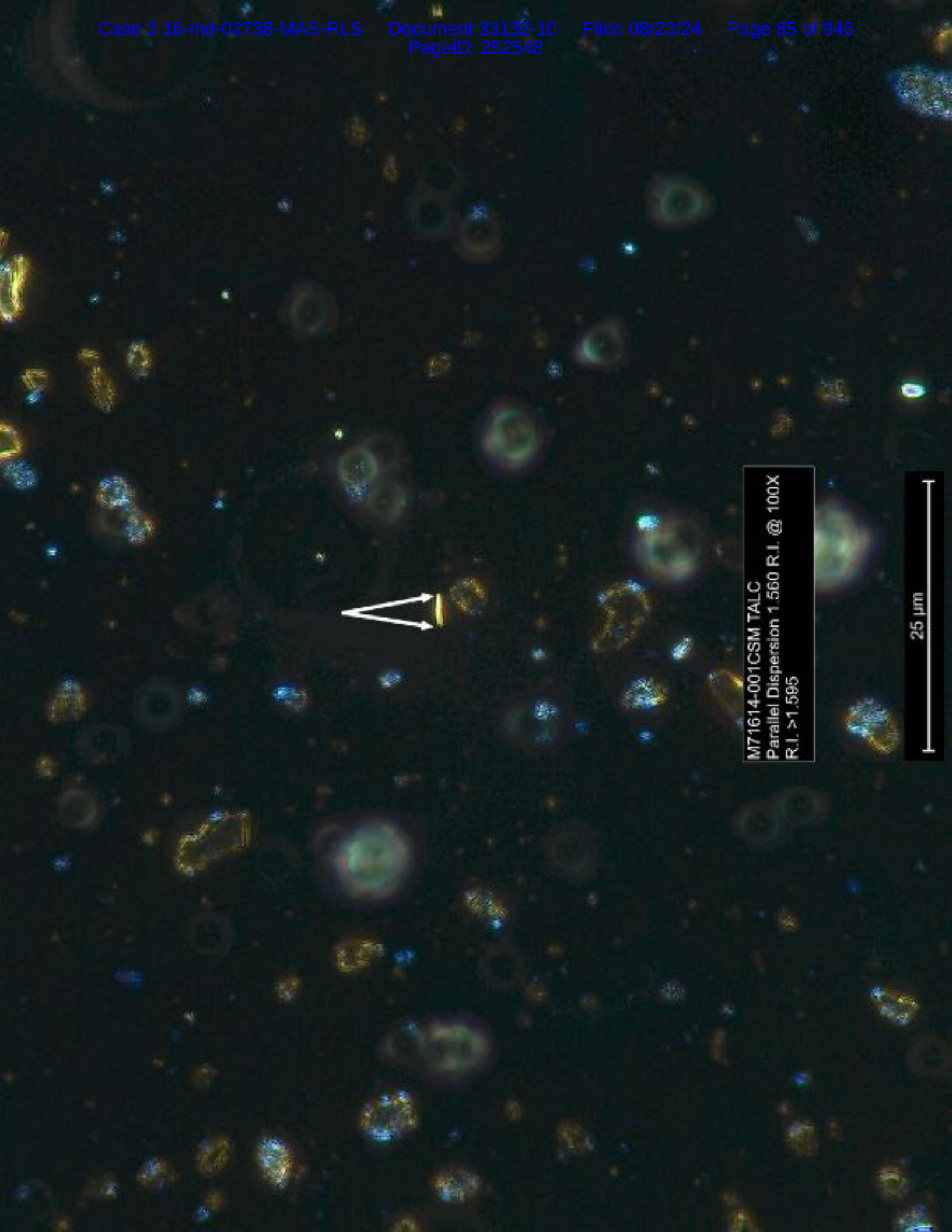


M71614-001
1



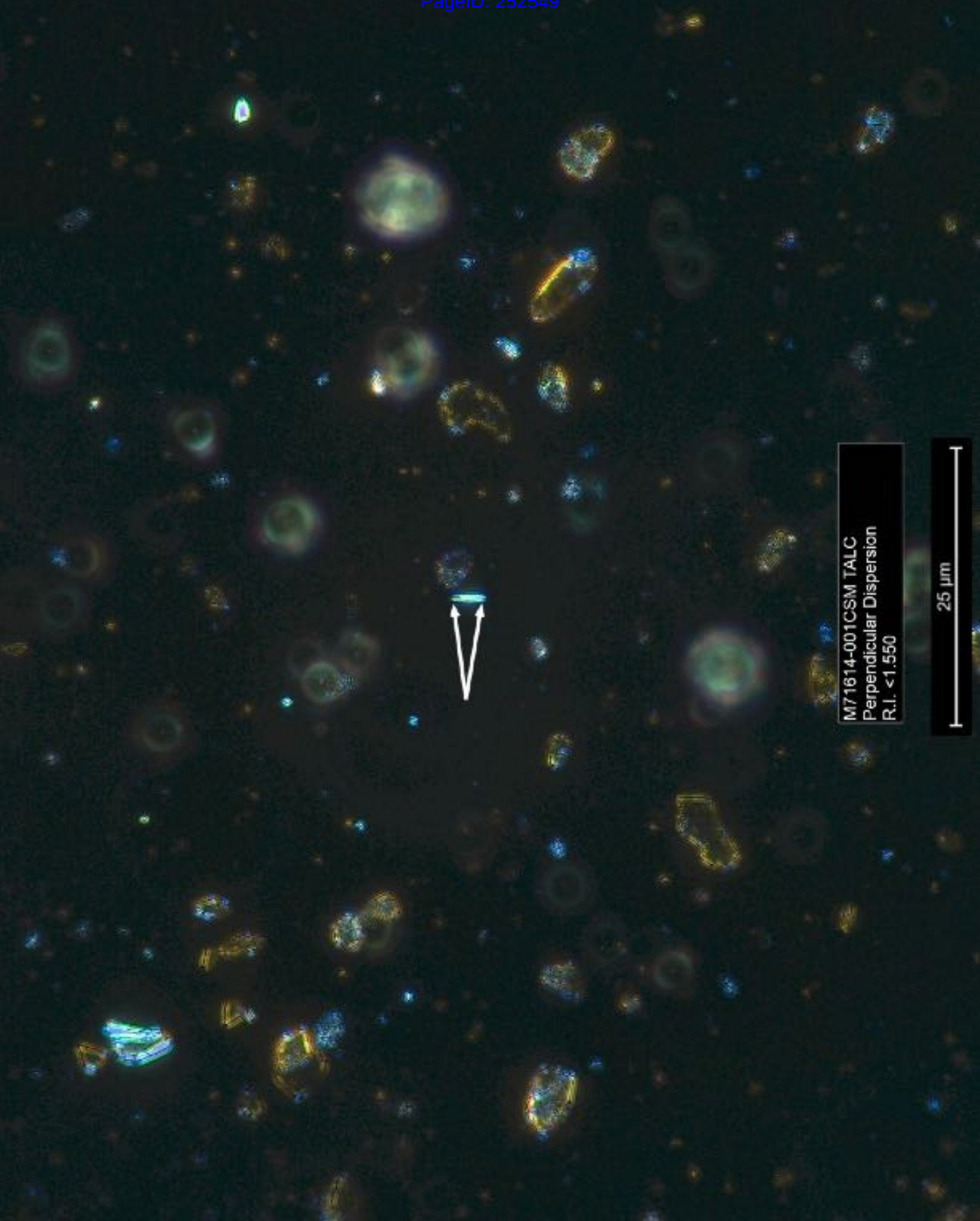


Section 6



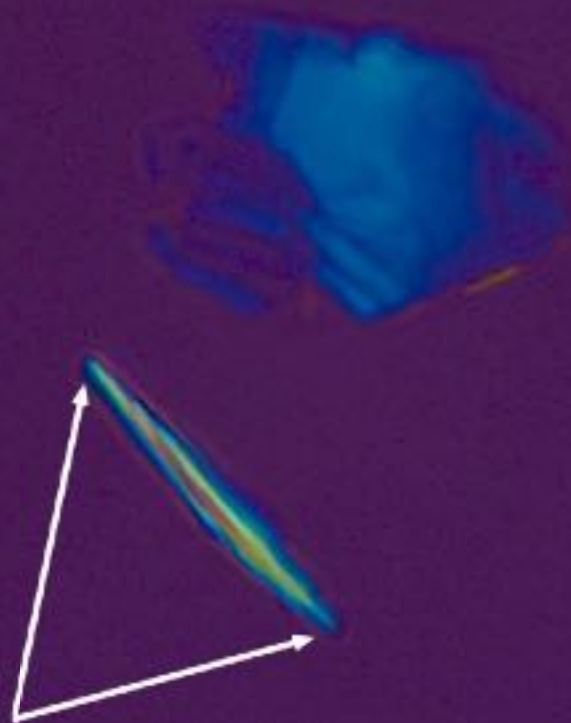
M71614-001CSM TALC
Parallel Dispersion 1.560 R.I. @ 100X
R.I. > 1.595

25 μm



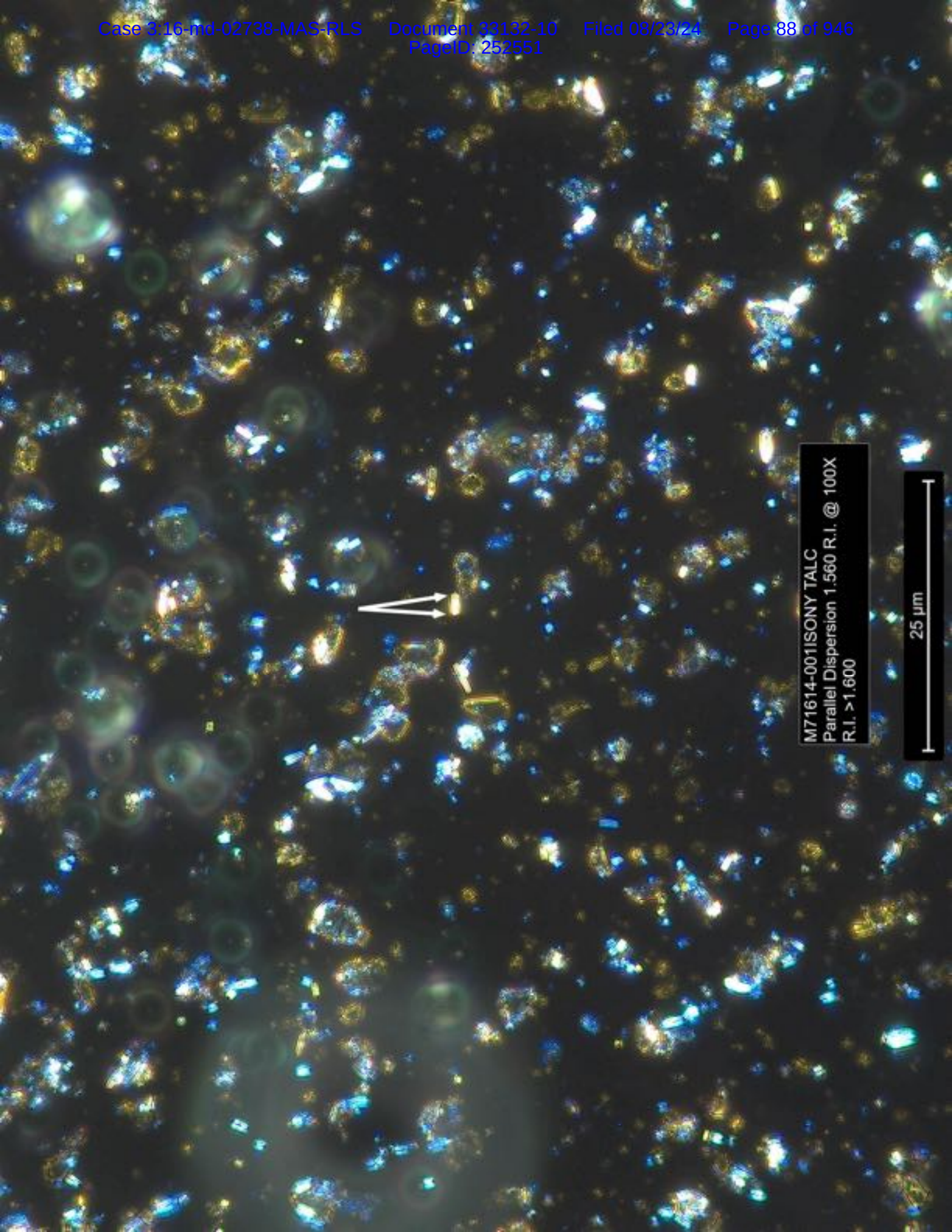
M71614-001CSM TALC
Perpendicular Dispersion
R.I. <1.550

25 μm



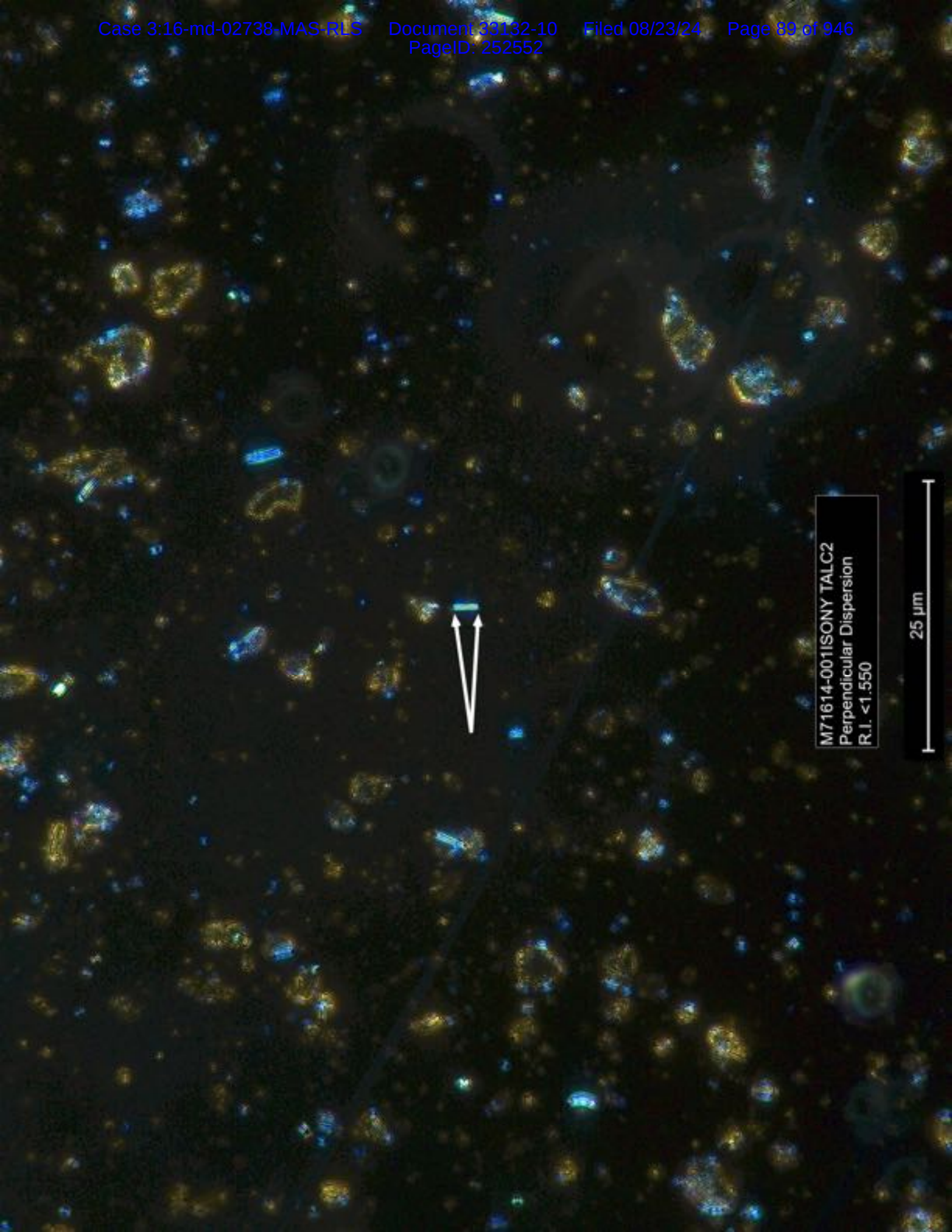
M71614-001CSM TALC
Elongation @ 630X

2.5 μm



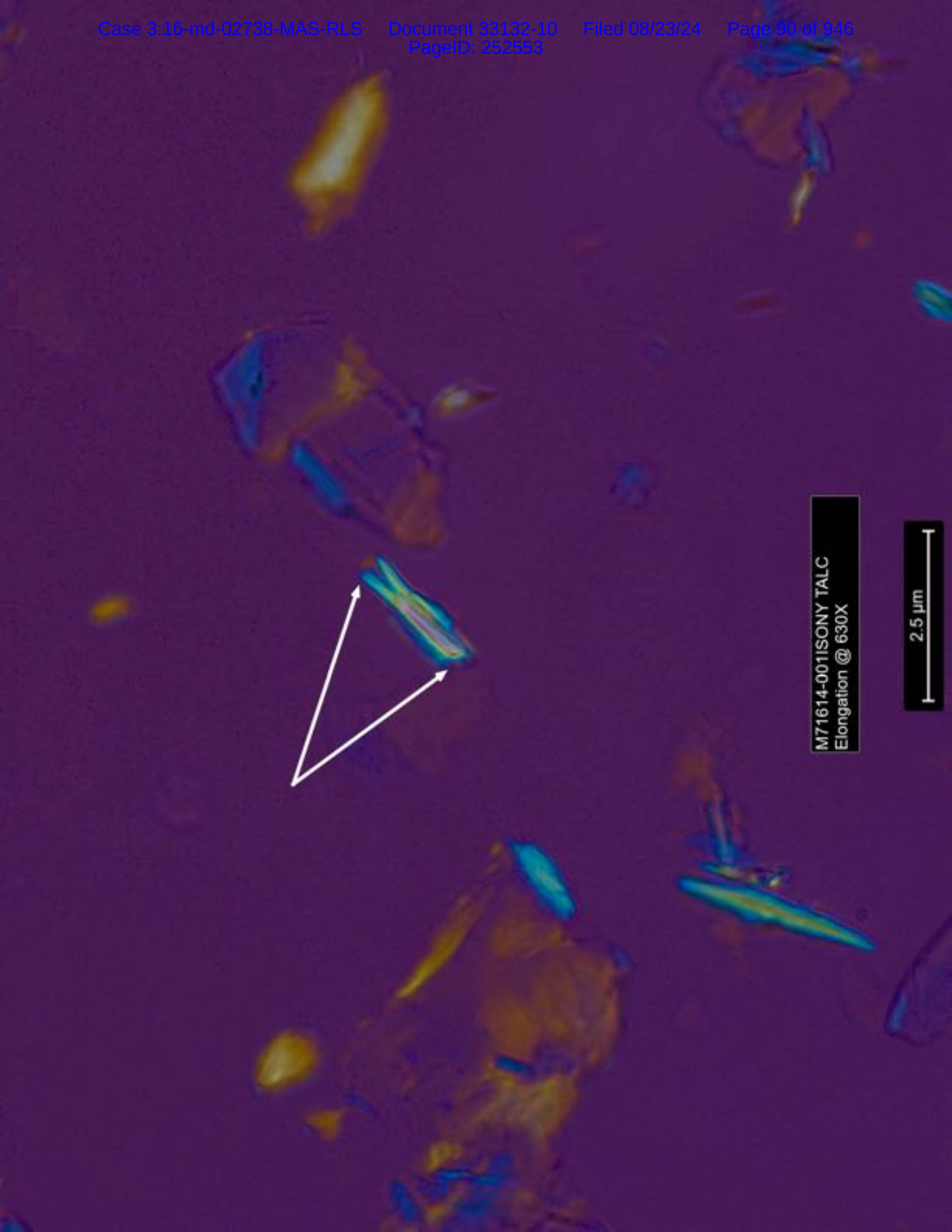
M71614-001 ISONY TALC
Parallel Dispersion 1.560 R.I. @ 100X
R.I. > 1.600

25 μm



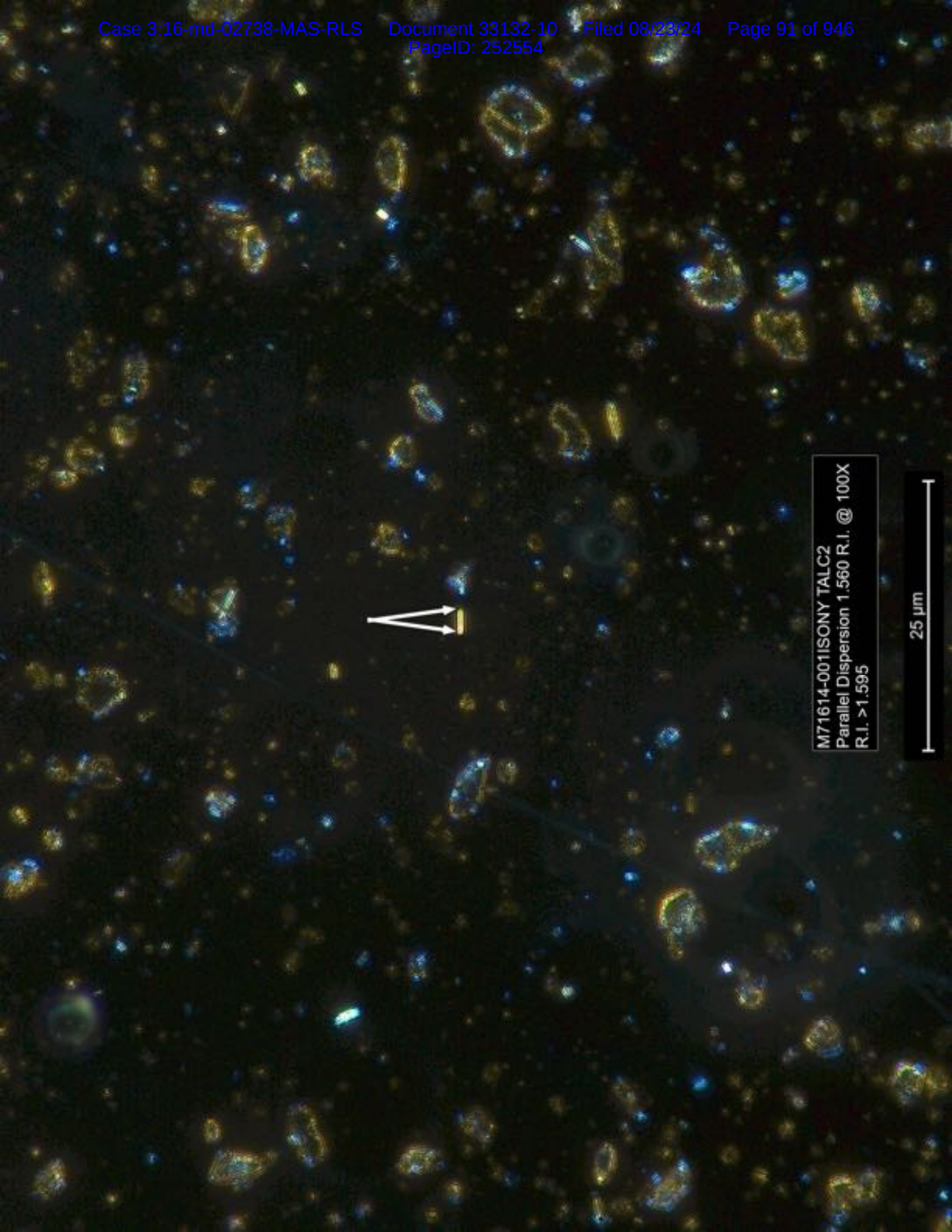
M71614-001ISONY TALC2
Perpendicular Dispersion
R.I. <1.550

25 μm



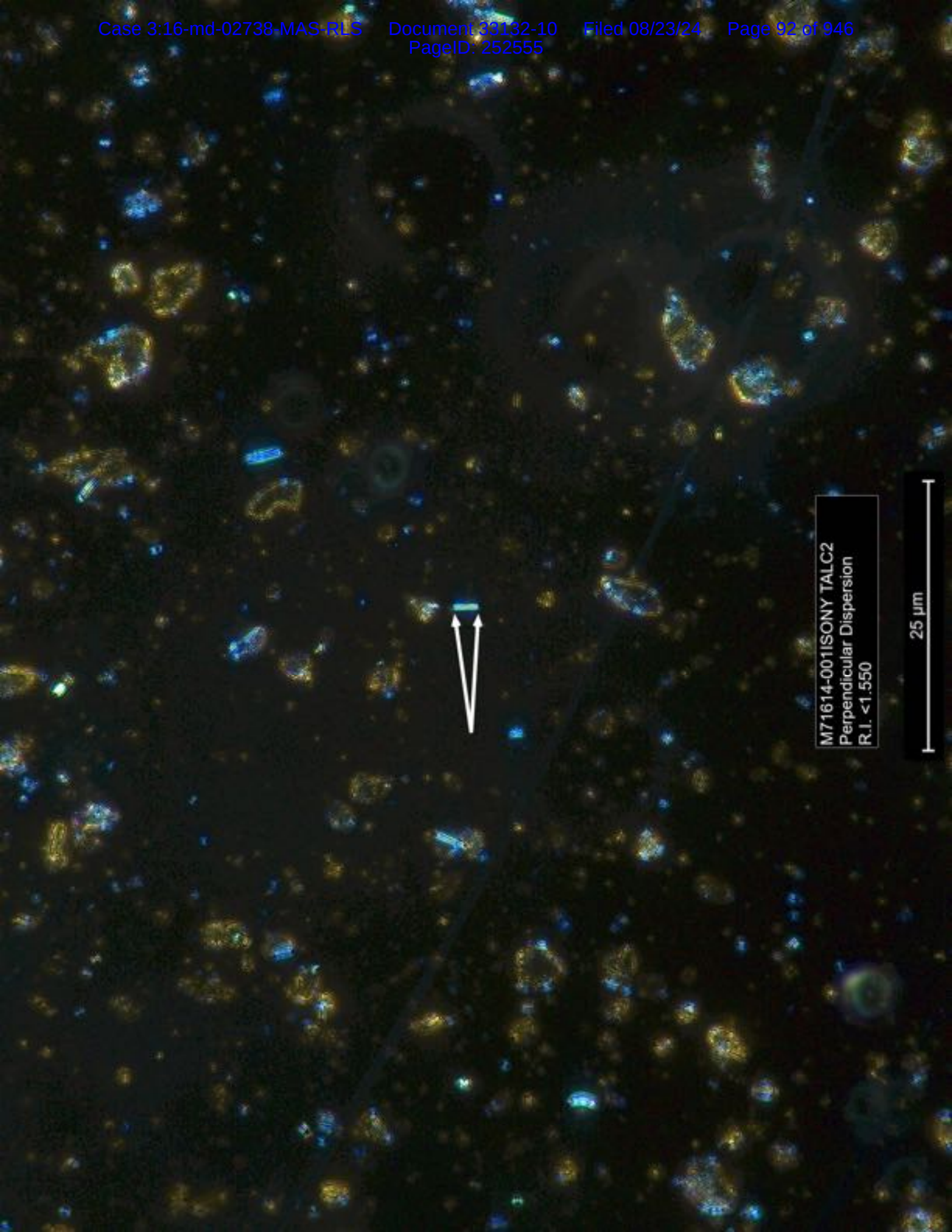
M71614-001 ISONY TALC
Elongation @ 630X

2.5 μm



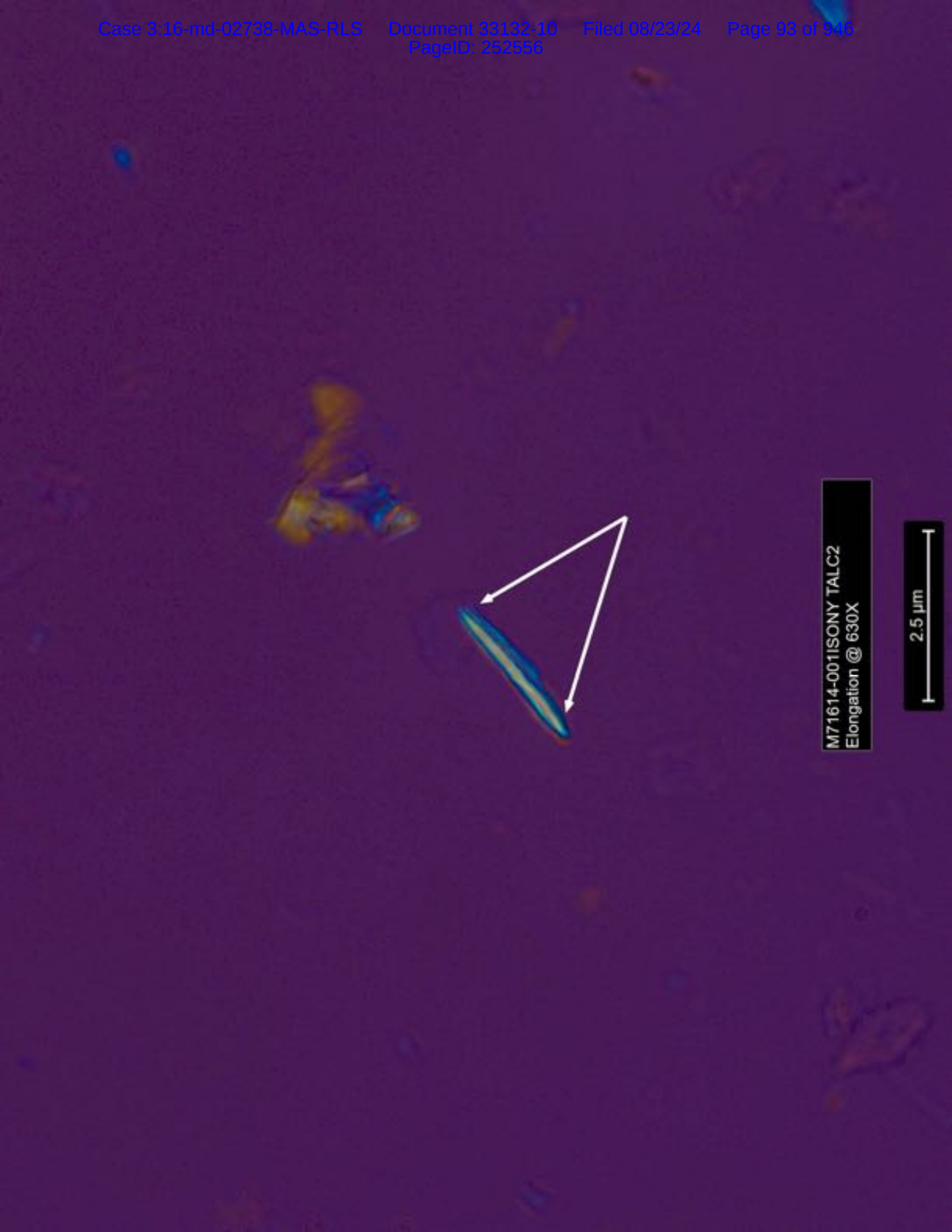
M71614-001 ISONY TALC2
Parallel Dispersion 1.560 R.I. @ 100X
R.I. > 1.595

25 μ m



M71614-001 ISONY TALC2
Perpendicular Dispersion
R.I. <1.550

25 µm



M71614-001ISONY TALC2
Elongation @ 630X

2.5 μ m

Exhibit 77a

ATLANTA

Corporate Headquarters
3945 Lakeland Court
Suwanee, GA 30024
(770) 866-3200 FAX (770) 866-3259

**Supplemental Expert Report**

**Comparison of RI's and Chrysotile Structure Size Union
Carbide's SG-210 Chrysotile Product from the Coalinga
Mine in California, Montanan Talc Sourced for both
Gold Bond and Clubman Body Powder, Fibrous Talc and
Reduced size NIST 1866b Chrysotile Standard.**

William E. Longo, Ph.D., CEO
Materials Analytical Services, LLC

October 9, 2023

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Section 5: SG210 Chrysotile 0.1% Spiked in Bentonite Clay

Section 6: Analysis, BIR and Bundle Size of Chrysotile Detected in the Montana Talc used by Gold Bond

Section 7: Analysis of Reduced Size 1866B Chrysotile with 1.550 & 1.560 RI Fluid.

MAS's PLM Analysis of Chrysotile in Cosmetic Talc

MAS PLM analysis was able to both detect and determine the amount of chrysotile bundles in the sample with HLS because MAS uses PLM microscopes that have higher resolution and analytical sensitivity capabilities, than your standard PLM microscope which is more suited for analyzing asbestos added products (AAP).

In AAP (chrysotile) samples as compared to cosmetic talc samples, have a much higher population of very large size chrysotile bundles and orders of magnitude higher concentration levels of chrysotile in these types of products.

The PLM analysis of AAP samples does not challenge the resolution of the typical PLM microscope optics, or burden the microscopist with very long sample analysis times. For example, in most PLM labs, including MAS's, the typical time required for an experienced PLM microscopist to analyze asbestos added products (AAP), where the majority of the AAP samples contain approximately 10 to 25 % asbestos, will only take about 15 and 20 minutes to complete the analysis.

With a cosmetic talc sample on the other hand, a typical PLM analysis at MAS, for either chrysotile or amphiboles asbestos, would routinely take 2 to 4 hours for a positive sample and a minimum of 20 minutes to hour for a negative sample, if there are no pigments in the sample. In order to both detect and analyze the small size of the chrysotile bundles (10 to 20 μm in length), that are typically found in cosmetic grade talcum powder, through the use of dispersion staining, the PLM microscope must have "flat" objective lenses, and a HD video camera attached to the PLM microscope that is interfaced to a high definition monitor.

The MAS PLM microscopes are state-of-the-art Leica DM2700P PLM microscopes, where all of the objective lens, including the 10X central stop dispersion lens are the flat type, also known as infinity lens, LED light source, and are coupled with state-of-the-art HD digital camera and 37" HD monitor. To detect these size chrysotile bundles, it is highly recommended that this type of PLM microscope setup should be used for the PLM analysis of cosmetic talc samples.

It is also my opinion that the PLM analyst must first analyze prepared talcum powder standards, containing UCC SG-210 or RG-144 Calidria chrysotile, to become familiar with both the size of chrysotile structures found in cosmetic talc, as well as the difference in the refractive indices for the chrysotile as compared chrysotile added products.

Both the RG-144 and RG-210 Calidria chrysotile and the chrysotile found in the talcum powder samples typically shows central stop dispersion colors (CSDS) from blues (α) to golden yellows (γ) in 1.550 liquid, and blue to a darker gold in 1.560 liquid. For the two UCC Calidria chrysotile samples, the SG 210 is a closer match then the RG 144 is to the size of chrysotile bundles detected in the cosmetic talc samples. Photomicrographs of Chinese source cosmetic talc, spiked with 0.05% SG-210 chrysotile, analyzed with 1.560 RI fluid can be found in Section 2 of this report

In Table 1, is a Bentonite clay sample that was spiked with 0.1% UCC's SG-210 chrysotile product showing the parallel and perpendicular RI's, calculated BIR and the length and width of seven chrysotile bundles. These photomicrographs can be found in Section 3 of this report.

Table 1

0.1% SG-210 Spiked Bentonite

1.550 RI Fluid

MAS Sample Number	Sample Prep.	Refractive Induces Parallel	Refractive Induces Perpendicular	Birefringence Avg	Length microns	Width microns
M71547-001	CSM-B O.1%	1.565-1.567	1.554	0.012	6 μm	1 μm
M71547-002	CSM-B O.1%	1.567-1.570	1.551-1.556	0.015	6 μm	1 μm
M71547-003	CSM-B O.1%	1.560-1.569	1.552-1.556	0.011	10 μm	2 μm
M71547-004	CSM-B O.1%	1.564-1.570	1.552-1.556	0.013	9 μm	1 μm
M71547-005	CSM-B O.1%	1.566-1.571	1.552-1.556	0.015	9 μm	1 μm
M71547-006	CSM-B O.1%	1.567-1.570	1.552-1.556	0.015	3 μm	0.6 μm
M71547-007	CSM-B O.1%	1.564-1.572	1.555-1.558	0.012	9 μm	1 μm
		Avg. 1.562-1.570	Avg. 1.553-1.556	Avg. 0.012	Avg. 8 μm	Avg. 1 μm

As this data demonstrated the SG-210 chrysotile product once sold by UCC, has gamma RI ranges that does not produce the "magenta" CSDS color, but instead has variations of the yellow-gold in the 1.550 RI fluid. The Bentonite clay matrix was used for one the SG-210 chrysotile spiked sample sets, so there isn't any fibrous or platy talc to confuse the issue. Platy talc is not known to be an accessory mineral to bentonite clay. Also, according to Dr. Gunter, there is no talc accessory mineral in the Coalinga chrysotile mine.¹ Additionally, Dr. Gunter was shown CSM-B 0.1% PLM photomicrographs in the Loc Ta case, and ask to identify what the mineral was in the photomicrograph, and Dr. Gunter identified it as platy talc plates on edge.² In fact, what Dr. Gunter was identifying as talc plates on edge, was the bentonite clay sample spiked with the 0.1% SG-210 chrysotile. This will be discussed in more detail in the next section.

Table 2 provides a comparison of the of chrysotile, analyzed using 1.550 RI fluid, shows the RI's, BIR and bundle size for the chrysotile detected in the Montana talc used by Gold Bond. Photomicrographs of the Gold Bond PLM analysis can be found in Section 4 of this report.

¹ April 27, 2023 Deposition of Dr. Gunter, in the *Evan Plotkin and Martha Barry Plotkin vs. Johnson & Johnson*.

² July 8, 2022 Deposition of Dr. Gunter, in the *Loc Ta and Christina Ta vs. Kaiser Gypsum Company, Plotkin and Martha Barry Plotkin vs. Johnson & Johnson*

Table 2
Chrysotile Analysis of Gold Bond
1.550 RI Fluid

MAS Sample Number	Sample Prep.	Refractive Induces Parallel	Refractive Induces Perpendicular	Birefringence Avg	Length microns	Width microns
M71376-001-001	CSM	1.568-1.565	1.562-1.551	0.010	24 μm	2.8 μm
M71376-001-002	CSM	1.568-1.566	1.557-1.553	0.012	4.5 μm	2 μm
M71376-001-003	CSM	1.569	1.556	0.013	13.6 μm	1.2 μm
M71376-001-004	CSM	1.567-1.564	1.558-1.553	0.011	12 μm	1 μm
M71537-001-001	CSM	1.567-1.564	1.562-1.553	0.008	4 μm	2 μm
M71537-001-002	CSM	1.568-1.566	1.552-1.556	0.012	4.4 μm	1.2 μm
M71537-001-003	CSM	1.568-1.566	1.562-1.553	0.012	6.4 μm	2.4 μm
M71537-001-004	CSM	1.572-1.567	1.559-1.552	0.014	7 μm	1.2 μm
		Avg. 1.568-1.565	Avg. 1.559-1.553	Avg. 0.012	Avg. 9 μm	Avg. 1.4 μm

Comparing tables 6 and 7, there is fairly good agreement between the UCC SG-210 chrysotile and the chrysotile detected in the two Gold Bond containers where the talcum powder was sourced from Montana. In my opinion this further demonstrates that chrysotile found in the talcum powder sourced from Montana, has RI's (CSDS) that is in the same range of a commercial mined chrysotile product that does not have a parallel magenta CSDS, but the yellow-gold with a low BIR including the perpendicular RI value.

MAS has been reporting this range of CSDS colors for the chrysotile detected in the cosmetic talc samples for almost two years using 1.550 RI liquid. During that time, defendant experts, retained by a number of cosmetic talc manufacturers, and have repeatedly testified that MAS's CSDS findings are not appropriate for chrysotile. Therefore, in their opinions, MAS was and has been misidentifying fibrous/platy talc edge or cellulose as chrysotile.

Dr. Gunter, while working as a defense expert for Gold Bond defense counsel, analyzed samples of RG-144 and SG-210 Calidria chrysotile, that MAS provided to him, and confirmed in a recent deposition that "Calidria chrysotile can produce a range of CDSC colors from bluish to golden-yellow in 1.550 liquid.³ Dr. Gunter's Calidria chrysotile results are consistent with our laboratories findings, which confirms both our PLM chrysotile findings in the cosmetic talc samples, as well as the SG-210 chrysotile results.

Additionally, Dr. Gunter's testimony about his Calidria CSDS results is in direct contradiction to his original criticism of the "yellow-gold" dispersion color, as well as Dr. Sanchez and Mr. Seagrave's past testimony and their expert reports on this issue.

³ Deposition of Dr. Mickey Gunter, *Woods, Jesse & Sarah vs. Kolmar Laboratories Inc. et al.* Supreme Court in the State of New York, County of Monroe, #E202000384

It is my opinion, that when these defense experts were testifying that our laboratory was misidentifying fibrous talc or talc plates on edge for chrysotile based on the CSDS "yellow color", as it turns out, the opposite was true, they were the ones misidentifying chrysotile as fibrous talc or talc plates on edge.

It is my opinion, that when these defense experts were testifying that our laboratory was misidentifying fibrous talc or talc plates on edge for chrysotile based on the CSDS "yellow color", as it turns out, the opposite was true, they were the ones misidentifying chrysotile as fibrous talc or talc plates on edge.

ISO-PLM Chrysotile Refractive Index Ranges

As shown in Table 3, the range of measured refractive indexes for the detected chrysotile bundles in the fourteen Clubman powder samples was 1.563-1.571 (parallel) and 1.556 to 1.567 (perpendicular) for the average using the CSMP method.

Shown in Table 6 are the range of RI's for the 57 chrysotile bundles that were recorded as examples of the chrysotile detected in the fourteen Clubman powder samples that were prepared by the CSMP method (with HLS).

Table 3
RI Fluid 1.560
Chrysotile
Range of Parallel and Perpendicular RIs

Chrysotile Bundle No.	RI Fluid	CSMP PLM (with HLS) Parallel RI	CSMP PLM (with HLS) Perpendicular RI	BIR Calculations $\gamma - \alpha$
M71598-001	1.560			
1		1.568	1.564	0.004
2		1.566	1.558	0.008
3		1.570	1.563	0.007
4		Avg. 1.567	1.561	0.006
		Avg. 1.568	Avg. 1.562	0.006
M71598-002	1.560			
1		1.569	1.562	0.007
2		1.566	1.561	0.005
3		1.565	1.560	0.005
4		1.571	1.563	0.008
5		1.567	1.561	0.006
		Avg. 1.568	Avg. 1.561	0.006
M71598-003	1.560			
1		1.566	1.562	0.004
2		1.567	1.563	0.004
3		1.568	1.560	0.008
		Avg. 1.567	Avg. 1.562	0.005
M71598-004	1.560			
1		1.565	1.563	0.004
2		1.570	1.562	0.008
3		1.570	1.562	0.008

4		1.567	1.565	0.002
		Avg. 1.568	Avg. 1.563	0.006
M71598-005	1.560			
1		1.566	1.562	0.004
2		1.567	1.562	0.004
3		1.566	1.560	0.006
4		1.570	1.562	0.008
		Avg. 1.567	Avg. 1.562	0.006
M71598-006	1.560			
1		Avg. 1.565	1.560	0.005
2A		1.568	1.558	0.010
2B		1.568	1.561	0.007
3		1.567	1.563	0.004
4		1.568	1.562	0.006
		Avg. 1.567	Avg. 1.561	0.006
M71598-007	1.560			
1		1.568	1.565	0.003
2		1.567	1.560	0.007
3		1.569	1.565	0.004
4		1.567	1.560	0.007
		Avg. 1.568	Avg. 1.563	0.005
M71598-008	1.560			
1		1.569	1.560	0.009
2		1.566	1.562	0.004
3		1.571	1.561	0.010
4		1.567	1.563	0.004
		Avg. 1.568	Avg. 1.562	0.008
M71598-009	1.560			
1		1.571	1.561	0.010
2		1.568	1.560	0.008
3		1.566	1.562	0.004
		Avg. 1.568	Avg. 1.561	0.007
M71598-010	1.560			
1		1.566	1.561	0.005
2		1.565	1.561	0.004
3		1.567	1.562	0.005
4		1.565	1.561	0.004
		Avg. 1.566	Avg. 1.561	0.005
M71598-012	1.560			
1		1.568	1.564	0.004
2		1.567	1.561	0.006
3		1.567	1.562	0.005
4		1.570	1.560	0.010

		Avg. 1.568	Avg. 1.562	0.006
M71598-013	1.560			
1A		1.566	1.562	0.004
1B		1.571	1.560	0.011
2		1.570	1.565	0.002
3		1.568	1.562	0.006
		Avg. 1.569	Avg. 1.562	0.006
M71598-014	1.560			
1		1.566	1.561	0.005
2		1.567	1.562	0.005
3		1.567	1.560	0.007
4		1.566	1.562	0.004
		Avg. 1.567	Avg. 1.561	0.005
M71598-015	1.560			
1		1.570	1.563	0.007
2		1.567	1.564	0.003
3		1.565	1.561	0.004
4		1.570	1.562	0.008
		Avg. 1.568	Avg. 1.563	0.006

Both the RG-144 and SG-210 chrysotile and the chrysotile found in the talcum powder samples typically shows central stop dispersion colors (CSDS) from blues (α) to golden-yellows (γ) in 1.550 liquid, and blue to a dark gold in 1.560 liquid for chrysotile structures in the 5 μ m to 20 μ m in length, and 1 to 3 μ m in width. MAS has been reporting this range of CSDS colors for the chrysotile detected in the cosmetic talc samples for almost two years using 1.550 RI liquid. As discussed above, during that time the defendant experts, retained by a number of cosmetic talc manufacturers, have repeatedly testified that MAS's CSDS findings are not appropriate for chrysotile. Therefore, in their opinions, MAS was and has been misidentifying fibrous/platy talc edge or cellulose as chrysotile. In my opinion, the defendant experts are wrong. The basis for this opinion is as follows:

For a set of Clubman samples, MAS used higher RI fluid (1.560) as discussed by Dr. Gunter, Alan Segrave in their expert reports, and Dr. Su's puzzling photo-shopped expert report, and where they both stated that MAS should use a higher RI fluid than 1.550 to verify that MAS is in fact identifying chrysotile.

MAS analyzed 14 Clubman powder samples chrysotile, instead of using 1.550 RI fluid, MAS used 1.560 RI fluid, for all 14 samples. The reason for this change, is because of the information provided in Dr. Su's 2nd quarter publication in "The Microscope Journal" that in his opinion,

using the 1.560 RI fluid would produce more accurate RI results. This issue is discussed later in this report.

Also, Dr. Gunter, while working as a defense expert for Gold Bond defense counsel, analyzed samples of RG-144 and SG-210 UCC chrysotile, that MAS provided to him, and confirmed in a recent deposition that "Calidria chrysotile can produce a range of CDSC colors from bluish to golden-yellow in 1.550 liquid.⁴ Dr. Gunter's Calidria chrysotile results are consistent with our laboratories findings, which in my opinion validates our PLM chrysotile findings in cosmetic talc samples.

Dr. Gunter's testimony about his Calidria CSDS results is in direct contradiction to his original criticism of the "yellow-gold" dispersion color in the gamma direction, as well as Dr. Sanchez and Mr. Seagrave's past testimony on this issue.

Additionally, in that same publication Dr. Shu-Chun Su states the following in his article;

"For high-accuracy measurements such as regulatory, legal, and forensic analysis, etc., the rule of thumb is to choose RI liquids as close as possible to the RI's that will be measured. For Example, there are chrysotile minerals whose RIs are significantly higher than those of the standard chrysotile from the NIST SRM 1866 set. In that case, 1.555 or 1.560, instead of 1.550 RI liquids should be used to determine γ ⁵

The range of gamma RI's we are seeing in the cosmetic talc is approx. 1.560 to 1.570, and with an average of typically 1.565 to 1.567, this range of CSDS fits into Dr. Su's reasoning for using 1.560 RI fluid instead of the 1.550. The Dr. Su article is the main reason we are now using 1.560 RI fluid for talcum powder chrysotile analysis instead of 1.550 RI fluid. Also, this article provided asbestos wavelength to RI charts for the various asbestos types and one for using 1.560 RI fluid for the analysis of chrysotile.

Additionally, Dr. Su, publishing a peer reviewed article on the analysis of asbestos by PLM, acknowledging that some types of chrysotile minerals will have significantly higher RI's, then the NIST 1866b chrysotile standard. Our cosmetic talc chrysotile analysis, as well as the SG-210 chrysotile both have higher RI's in the parallel direction then what is seen for the NIST 1866b chrysotile standard. With this statement, Dr. Su is acknowledging, that not all chrysotile minerals with have the magenta dispersion color, but not everybody understands this concept.

⁴ Deposition of Dr. Mickey Gunter, Woods, Jesse & Sarah vs. Kolmar Laboratories Inc. et al. Supreme Court in the State of New York, County of Monroe, #E202000384

⁵ Shu-Chun Su, Ph.D., "The Dispersion Staining Technique and Its Application to Measuring Refractive Indices of Non-opaque Materials, with Emphasis on Asbestos Analysis", The Microscope Volume 69, Second Quarter, 2022.

For example, I believe that both Dr. Sanchez's and Alan Seagrave's opinions are that chrysotile is always going to produce a magenta dispersion in the gamma direction, and that it can't have the higher RI's in the gamma direction giving a CSDS yellow-gold in 1.550 RI fluid. Nevertheless, it now been verified by both Dr. Sanchez's Ph.D. and his Ph.D. Professor Dr. Gunter, and Dr. Su stating that chrysotile can have higher CSDS then found for the NIST 1866b chrysotile standard.

So, the question we have recently tried to an answer is question of "why the higher gamma RI's for both the SG-210 chrysotile and cosmetic chrysotile we have identified in the cosmetic talcs, then the typical gamma RI's CSDS magenta color produced by the NIST 1866b chrysotile standard?

First, we examined what could have caused this shift to higher gamma RI's between the UCC's SG-210 chrysotile product, and the chrysotile found in the cosmetic talcs as compared to the NIST 1866b chrysotile standard. This investigation resulted in findings that the primary reason for the SG-210 and the chrysotile detected in the cosmetic talcs to have higher CSDS is because of the size difference between the NIST 1866b chrysotile standard along with the overwhelming majority of chrysotile add products. The most probable reason for the difference in CSDS colors is the chrysotile structure size difference between what is found in cosmetic talcs and what is found in chrysotile added products.

To determine if it was the size of the chrysotile bundles found in the cosmetic talc and SG-210 as compared to the size of the bundles found in chrysotile added products, could affect CSDS colors, the following observations were made.

The ISO 22262-1 PLM analysis protocol shows a photograph of the chrysotile CSDS colors using RI fluid 1.550. The parallel direction shows the magenta color and the perpendicular direction shows a purplish-blue color. The size of the chrysotile bundle shown for ISO 1866b chrysotile standard has a visible length of at least 3 to 4 millimeters and approx. 300 to 400 μm wide. When compared to the size of the SG 210 and the chrysotile found in the cosmetic talcs, the length and width of the chrysotile bundle displayed in the ISO 22262-1 protocol, is hundreds to thousands of times longer than the length and width of the chrysotile found in the cosmetic talc products.

The reason for this chrysotile size difference is either the cosmetic chrysotile bundles were formed that way, along with the talc plates, and or because both the SG-210 and talc ore was reduced in size during the milling process, while the NIST 1866b chrysotile standard was probably not.

To test this hypothesis that the thickness of the chrysotile bundle could affect the CSDS colors, MAS performed a study where a one-gram sample from the NIST 1866b chrysotile standard was milled with a liquid nitrogen ball-mill for 25 minutes. This milling process reduced the overall size range of the NIST chrysotile standard that produced a minus 200 sieve size chrysotile bundles fraction along with a plus 200 size fraction. The minus 200 particle size 1866b fraction was removed and analyzed by PLM using both 1.550 and 1.560 RI fluid.

The results of the PLM analysis, using 1.550 RI fluid of the minus 200 size 1866b chrysotile showed higher refractive indices for the parallel direction for what is the expected range for the NIST 1866b chrysotile as shown in Tables 3 and 4 in the ISO 22262-1 PLM method. The reported RI's for the non-reduced 1866b chrysotile standard was between 1.556 to 1.552 for the parallel direction, and 1.544 to 1.549 for the perpendicular direction. Comparison RI's for the minus 200 sieved 1866b chrysotile to the ISO 22262-1 ranges are shown in Table 4. The photomicrographs for the 1866b reduced bundle size, analyzed with 1.550 RI fluid, can be found in Section 5 of this report.

Table 4
Comparison of IRs for Reduced size 1866b chrysotile
to ISO 22262-1 chrysotile RI's
1.550 RI Fluid

Sample #	Reduced size 1866b Gamma	ISO 22262-1 Gamma	Reduced size 1866b Alpha	ISO 22262-1 Alpha	BIR Calculations
1	1.562	1.556-1.552	1.550	1.554-1.549	0.012
2	1.560	1.556-1.552	1.549	1.554-1.549	0.011
3	1.562	1.556-1.552	1.552	1.554-1.549	0.010
4	1.562	1.556-1.552	1.547	1.554-1.549	0.014
5	1.562	1.556-1.552	1.547	1.554-1.549	0.014
6	1.557	1.556-1.552	1.549	1.554-1.549	0.018
7	1.563	1.556-1.552	1.551	1.554-1.549	0.012

As can be seen from the above comparison, the reduced size 1866b chrysotile standard gamma RI's are all higher than what is thought to be required for identifying chrysotile. Also, the reduced size 1866b gamma RI's, are in the range with the chrysotile we have been identifying in numerous talcum powder samples over the last few years. For the alpha direction, the MAS results in the past, has either overlapped for what is expected for the 1866b chrysotile standard or has had RI's in the range as shown in Table 5.

The reduced sizes 1866b chrysotile was also analyzed by PLM with 1.560 RI fluid. For the parallel direction, the range of Gamma was 1.559 to 1.562 and 1.554 to 1.557 for the perpendicular direction. These results are shown in Table 5. The photomicrographs for the 1866b reduced bundle size, analyzed with 1.560 RI fluid, are the same photomicrographs in Section 6 of this report.

Table 5
Comparison of IRs for Reduced size 1866b Chrysotile
to ISO 22262-1 chrysotile RI's
1.560 RI Fluid

Sample #	Reduced size 1866b Gamma	Reduced size 1866b Alpha	Length -Width microns	BIR Calculations
1	1.560	1.557	1.04 – 0.39	0.003
2	1.562	1.557	2.18 – 0.25	0.005
3	1.560	1.557	2.02 – 0.27	0.003
4	1.559	1.556	3.33 – 0.55	0.003
5	1.560	1.554	1.22 – 0.20	0.006

Since MAS has been reporting the findings of chrysotile in cosmetic talc, both Dr. Sanchez and Mr. Seagrave have repeatedly issued expert reports and testified that MAS has been misidentifying fibrous talc as chrysotile. They based this opinion on the fact that our CSDS colors were not magenta for the gamma direction, caused by the reported higher RI's. Their opinions were along the lines that for identifying chrysotile with PLM, if it didn't have CSDS magenta dispersion color in the gamma direction, it was not chrysotile.

It is my opinion that the reduced sieve size 1866b chrysotile clearly shows that they are wrong. Therefore, it is my opinion, that when these defense experts were testifying that our laboratory was misidentifying fibrous talc or talc plates on edge for chrysotile based on the CSDS colors that were not magenta for the gamma direction, as it turns out, the opposite was true, the defense experts were the ones misidentifying chrysotile as fibrous talc or talc plates on edge.

The reduced size 1866b chrysotile RI's in 1.560 fluid are in the same range as the reduced 1866b RI's in the 1.550 fluid. Hence, none of the 1886b reduced size chrysotile bundles have

the magenta dispersion color in the gamma direction as shown for the very large chrysotile bundles photomicrographs shown in the ISO 22262-1 PLM method. This comparison of the reduced size 1866b chrysotile standard RI's to the chrysotile bundle RI's detected in the 14 Clubman samples is fairly close, and in my opinion, validations that the chrysotile detected in Clubman samples was correctly identified as chrysotile. Additionally, this data further supports my opinion that by reducing the size of the chrysotile bundles effects the CSDS colors by increasing the refractive induces in the gamma direction

Birefringence Measurements

The key optical property to differentiate fibrous talc from chrysotile asbestos, when using the PLM method, is determining the difference in the birefringence (BIR) value between these two elongated minerals. Most PLM analysts will just use the PLM cross-polar condition to visually estimate the magnitude of the BIR (Low, Moderate or High) by the amount of brightness and change in wavelength colors that are observed.

This visual estimate of the amount of birefringence is typically done under cross-polar conditions where a subjective comparison is made by the PLM analyst, and therefore, is not very precise. A more accurate determination of BIR is to calculate the numerical BIR value by simply subtracting the measured perpendicular RI from the measured parallel RI ($n_{\parallel} - n_{\perp}$).

The subtracted BIR results give the analyst a numerical birefringence (BIR) value that is either classified as **Low (<0.01)**, **Moderate (0.01 to 0.05)** and **High (>0.05)**.

Fibrous talc and/or talc plates on edge will have a calculated BIR value that is typically at the high end of Moderate (0.045) to greater than 0.05 which is in the High BIR range. Chrysotile on the other hand, will have BIR values that range from the upper end of the Low range to the lower end of the Moderate range. The average calculated range of BIRs (Table 3), for the detected chrysotile bundles from the fourteen Clubman powder samples for CSMP PLM method was **0.005 to 0.008 (avg. 0.007)** which falls in the low end of BIR classifications. When the BIR was calculated for each of the 56 individual chrysotile bundles shown in Table 6, the approximate BIR was calculated to 0.006 that is again in the range published by the EPA in their PLM bulk method discussed below.

The BIR difference between fibrous talc and chrysotile, as demonstrated by MAS, is also verified by the EPA in their 600/R-93/116 PLM methodology document as shown in Table 2-2, page 21.⁶

Shown in Table 2-2, "Optical Properties of Asbestos Fibers", provides four sets of refractive indexes measured from chrysotile bundles that have an overall average BIR of 0.011. This is in good agreement with the overall **MAS BIR avg range of 0.006 to 0.007** for the chrysotile

⁶ U.S. Environmental Protection Agency "Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116 July 1993

bundles detected in the fourteen Clubman powder samples for CSMP sample preparation method.

In that same table, EPA published a range chrysotile BIR's of 0.004 to 0.017 (Low to moderate). This BIR range reported by EPA, was from the Maximum and Minimum values obtained from references 2, 11, 12, and 18 located in Section 22.

The EPA R93 protocol also provides RI and BIR data for both fibrous talc and Flat Cellulose Ribbons that can be found in their Table 2.5. For the RI's of fibrous talc example, EPA reports refractive index 1.600-1.540 with a measured BIR of 0.06, and for cellulose ribbons, the reported EPA RI's are 1.580-1.530 with a measured BIR of 0.05 as shown in Table 6.

Table 6
EPA-R93: Optical Properties of Selected Fibers
Fibrous Talc & Cellulose Ribbons

Fiber Type	RI Parallel/Perpendicular	BIR Calculations
Fibrous Talc	1.600-1.540	0.060 "High"
Cellulose	1.580-1.530	0.050 high end of Moderate

MAS has analyzed a significant number of talc fibers over the last two years under the exact same PLM conditions as the chrysotile bundles in the cosmetic talc (same RI fluid, same microscope conditions, and the brightness level at maximum intensity. Shown in Table 10, is the PLM analysis of Chinese sourced talcum powder of fibrous talc that was analyzed in 1.560 fluid. Photomicrographs of the fibrous talc PLM analysis can be found in Section 6 of this report.

Table 7
Fibrous Talc Analysis of Chinese Talcum Powder
Spiked with 0.05% SG-210
RI Fluid 1.560

MAS Sample Number	Sample Preparation	Refractive induces Parallel	Refractive indices Perpendicular	Calculated BIR
Sample 1	CSM	>1.595	<1.550	>0.045
Sample 2	CSM	>1.590	<1.550	>0.040
Sample 3	CSM	1.590	<1.550	>0.045
Sample 4	CSM	>1.595	<1.550	>0.045
				>Avg. 0.045

The avg. of >0.045 for the fibrous talc as compared to 0.007 calculated for the chrysotile detected in the Clubman samples is greater than 6 times higher for the fibrous talc or talc plates on edge. This data is consistent with the fibrous talc BIR that EPA published in their R93-600

PLM method as shown in Therefore, it is opinion that any competent PLM analyst can easily distinguish between these two minerals.

For a visual demonstration showing the significant difference between chrysotile bundles and fibrous talc our talc plates on edge, MAS has recorded photomicrographs of chrysotile and talc intergrowths where one portion of bundle is chrysotile and one portion fibrous talc. Obviously, since these are intergrowths and are on the same photomicrographs, then the brightness conditions of the microscope have to be the same, which is the brightness is at maximum. Shown in Table 8, are the RI's for fibrous talc-chrysotile intergrowth bundles that were analyzed by PLM using 1.550 RI Fluid. The photomicrographs for this analysis can be found in Section 7 to this report.

Table 8
Fibrous Talc Chrysotile Intergrowths
M71222
RI Fluid 1.550

MAS Sample Number	RI's Chry $\gamma - \mu$	BIR Chry	RI's Talc $\gamma - \mu$	BIR Talc
M71222-005ISO-002	1.564-1.550	0.014	>1.590-1.540 1.585 -1.535	>0.050
M71222-005CSM-002	1.564-1.552	0.012	>1.585-1.535	>0.050
M71202-005CSM-004	1.565-1.553	0.012	>1.585-1.540	>0.045
M71171-001ISO-004	1.568-1.558 1.562-1.551	0.011	1.590-1.538 1.575-1.538	0.045

These talc/chrysotile intergrowth photomicrographs visually demonstrates that there is clearly a significant BIR difference between chrysotile and fibrous talc, or talc plates on edge. In my opinion, this just further validation that MAS is not misidentifying fibrous talc as chrysotile.

MAS Method of BIR Calculations

The way MAS calculates the BIR when there is a range of RI's for both the gamma and alpha direction, MAS subtracts the high μ value from the high γ value, then subtracts the low μ value from the low γ value. This BIR calculation has been attacked by both Dr. Sanchez and Mr. Seagrave where they say I am doing wrong, because the ISO 22262-1 PLM states that one should subtract the lowest μ value from the highest γ value. Nowhere in the BIR section in the ISO 22262-1, does it state that to determine the BIR, you subtraction the lowest alpha from the highest gamma.

Where they get that idea is from the glossary section of the ISO method, where it states Birefringence is the "quantitative expression of the maximum difference in refractive index due to double refraction. It does not state that the lowest alpha is subtracted from the highest gamma, nor does it state that in the actual methodology section of the protocol, Section 7.2.3.7.2.

For the determination of the BIR, Section 7.2.3.7.2. method describes how this is done under cross polar conditions where you observe the interference colors for first order, second order and third order as shown in the Michael Levy interference color chart. It is the observation of the interference color that determines the BIR where the PLM analyst will then record if it's Low, Medium or High, or at times, can be recorded as Low to Medium or Medium to High. There is no calculation numerical value by this method.

An example of the numerical calculation of the BIR for chrysotile can be found in the EPA R93-600 method shown in Table 2.2. For chrysotile, this Table provides the RI's for four referenced chrysotile bundles, where each bundle as a range for both gamma and alpha, as well as a calculated range for the chrysotile BIR. For the following Table 11, a comparison is made for the calculation of the reference BIRs to chrysotile RI examples by subtraction the highest alpha from the highest gamma and the lowest alpha to the lowest gamma. These results will be compared to Sanchez and Seagrave method of subtracting the lowest alpha from the highest gamma.

Table 11
Comparison of EPA BIR Calculations
To the Sanchez & Seagrave Method

Refractive Indices	EPA Calculated BIR		Refractive Indices	Sanchez/Seagrave Calculated BIR	
α 1.493-1.546 γ 1.517-1.557	1.557-1.546 = 0.011 1.517-1.493 = 0.024	Avg. 0.017	1.493-1.546 1.517-1.557	1.557-1.493 = 0.064	0.064
1.532-1.549 1.545-1.556	1.556 -1.549 = 0.007 1.545 -1.532 = 0.013	Avg. 0.010	1.532-1.549 1.545-1.556	1.556-1.532 = 0.023	0.023
1.529-1.559 1.537-1.567	1.567 - 1.559 = 0.008 1.537- 1.529 = 0.006	Avg. 0.007	1.529-1.559 1.537-1.567	1.567-1.529 = 0.038	0.038
1.544-1.553 1.552-1.561	1.553 - 1.561 = 0.008 1.552-1.561 = 0.011	Avg. 0.010	1.544-1.553 1.552-1.561	1.561-1.544= 0.017	0.017

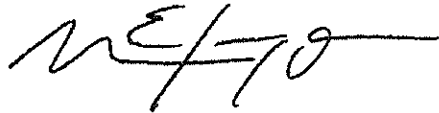
Using the EPA method, the BIR range was 0.007 to 0.017, with an overall average of 0.011 which is in the Low range to lower end of Medium range, which is consistent with chrysotile.

On the other hand, using the Sanchez/Seagrave BIR calculation method, the calculated BIR range is 0.017 to 0.064 with an average of 0.036. Which is not even close for what is expected for chrysotile. The method that we and the EPA used for the calculation of the BIR, is also the

method that the Deere, Howie and Zussman used in their publications for minerals that have double refraction.

I have not been able to locate one reference for BIR calculations for when you have a range of RI's that you would calculate the RI's as Sanchez and Seagrave suggests. It is my opinion that the evidence shows that the only correct method for the determination of BIR calculations, when you have a range of RI's for either gamma and or alpha, that you follow the EPA or Deer, Howie and Zussman calculation method. In my opinion, this data shows that the method that Sanchez and Seagrave state that should be followed, for the BIR calculation, is completely wrong.

The opinions I have expressed in this report are all held to a reasonable degree of scientific certainty.



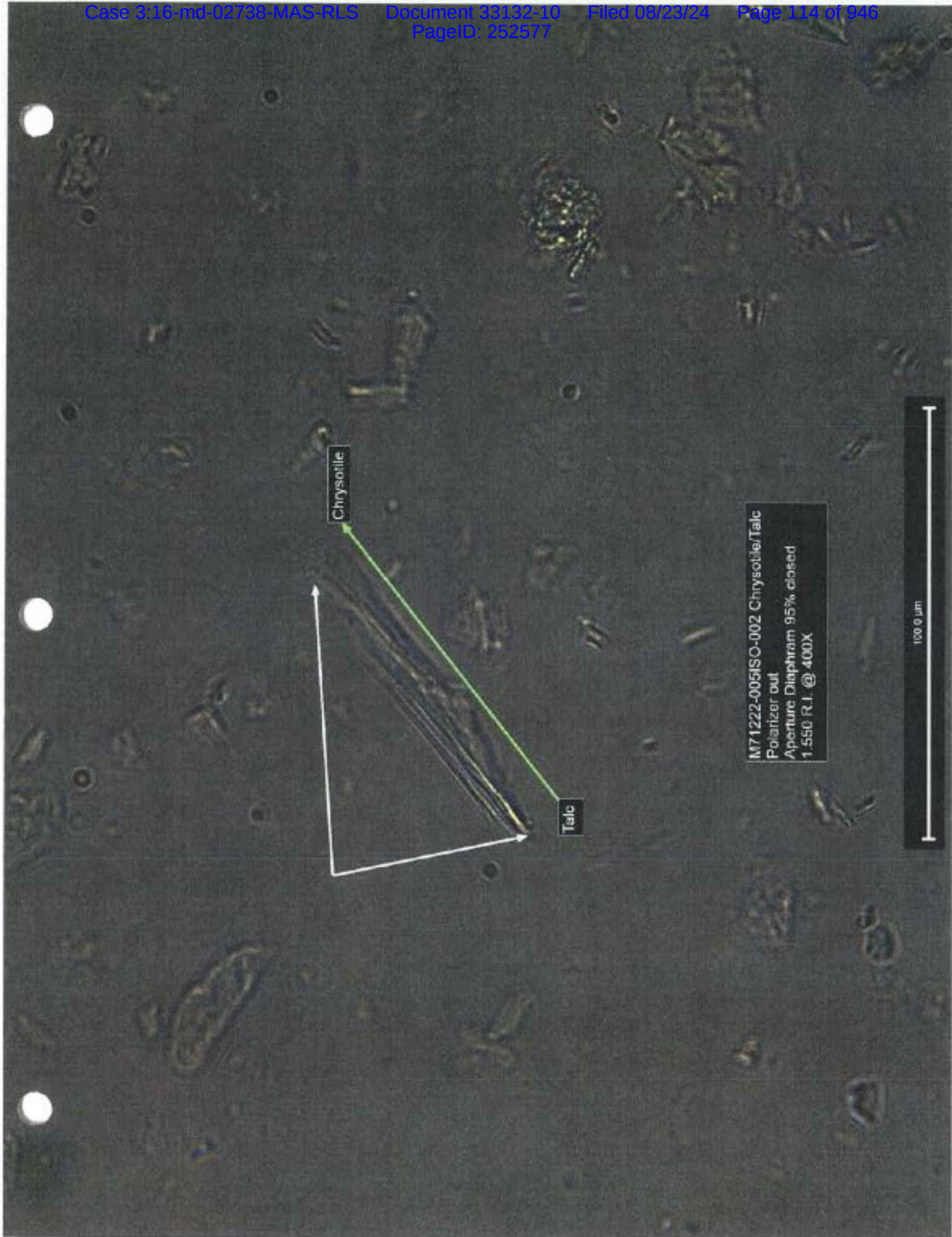
William E. Longo Ph.D. CEO
Materials Analytical Services, LLC

Section 2



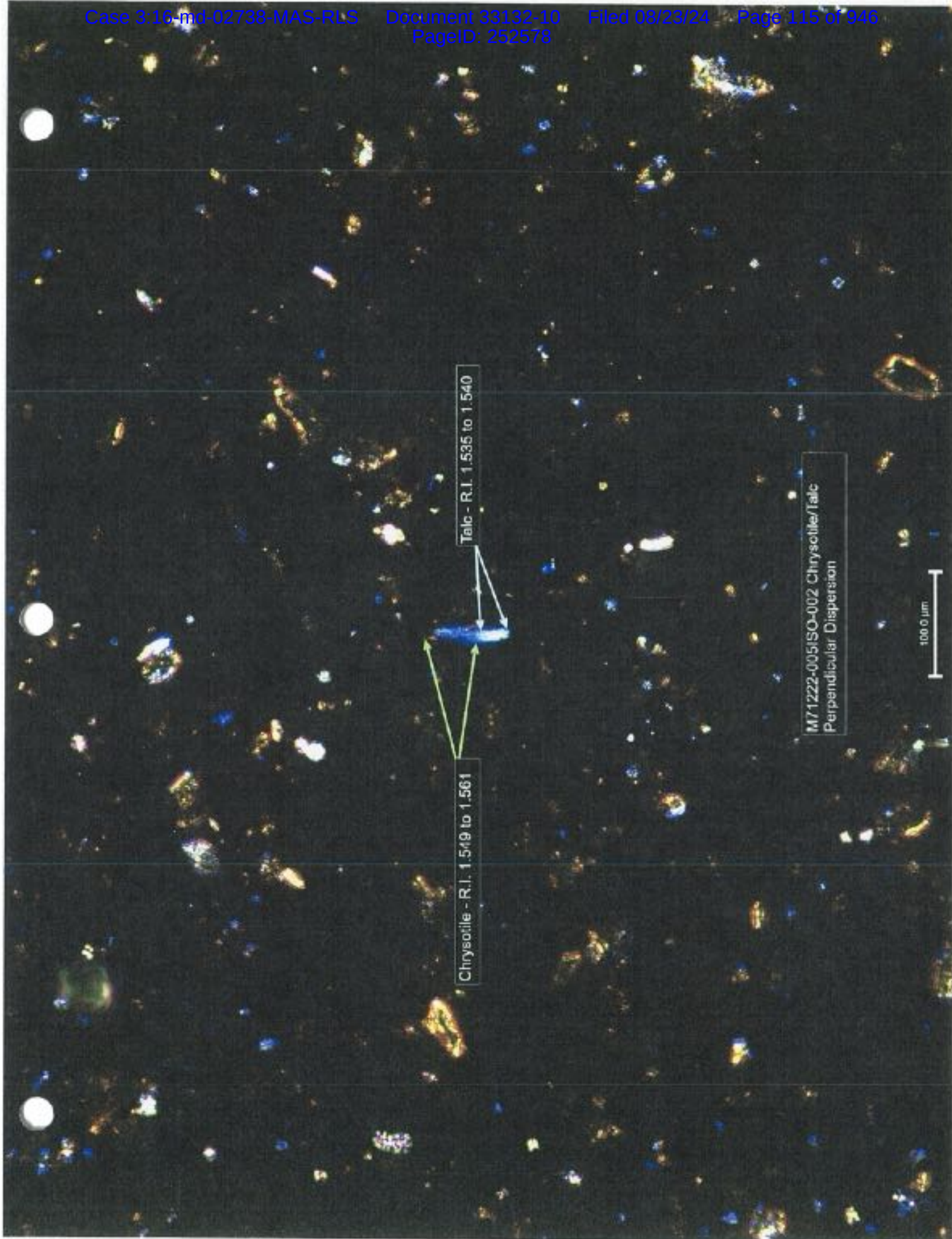
M7122-005/ISO-002 Chrysotile/Talc
Crossed Polars

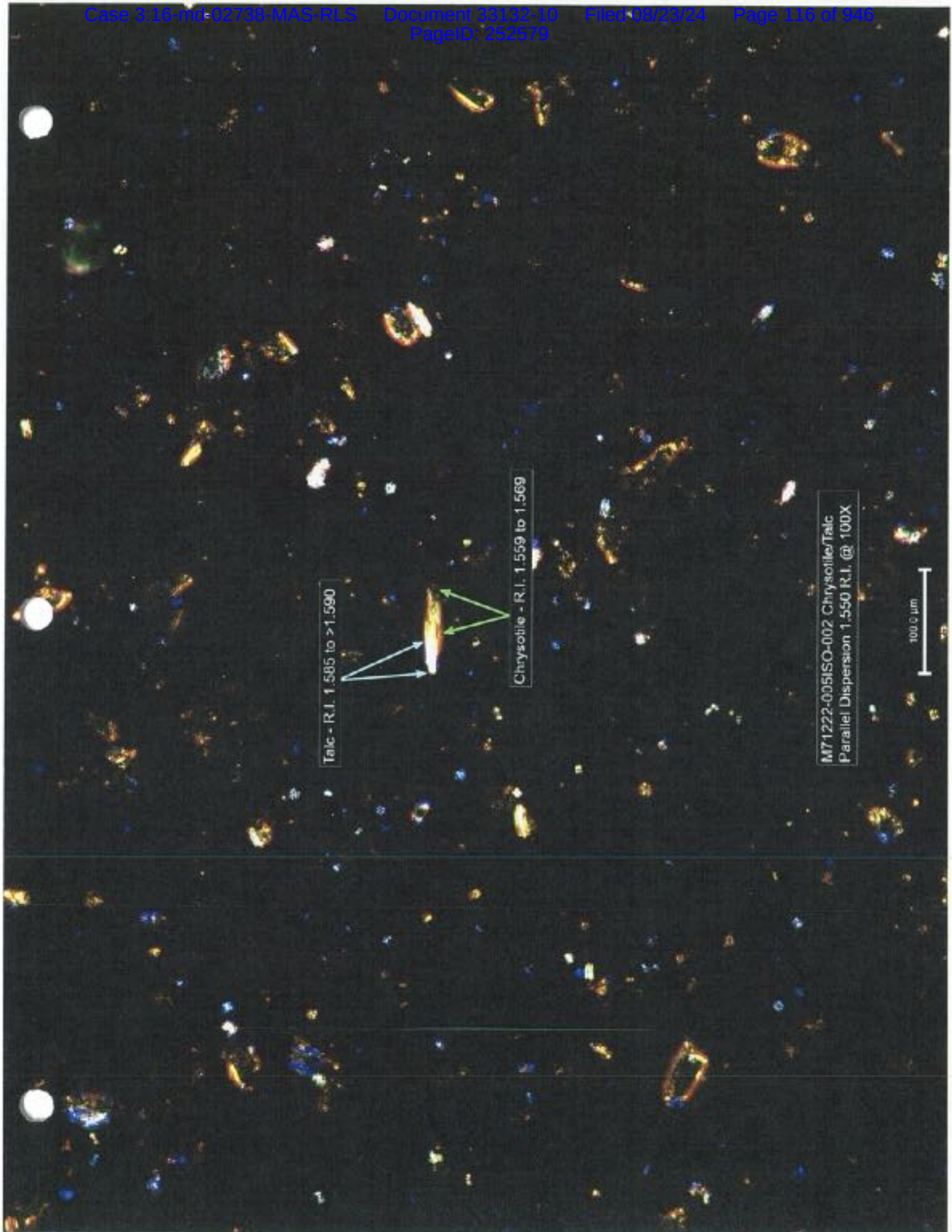
100.0 μ m

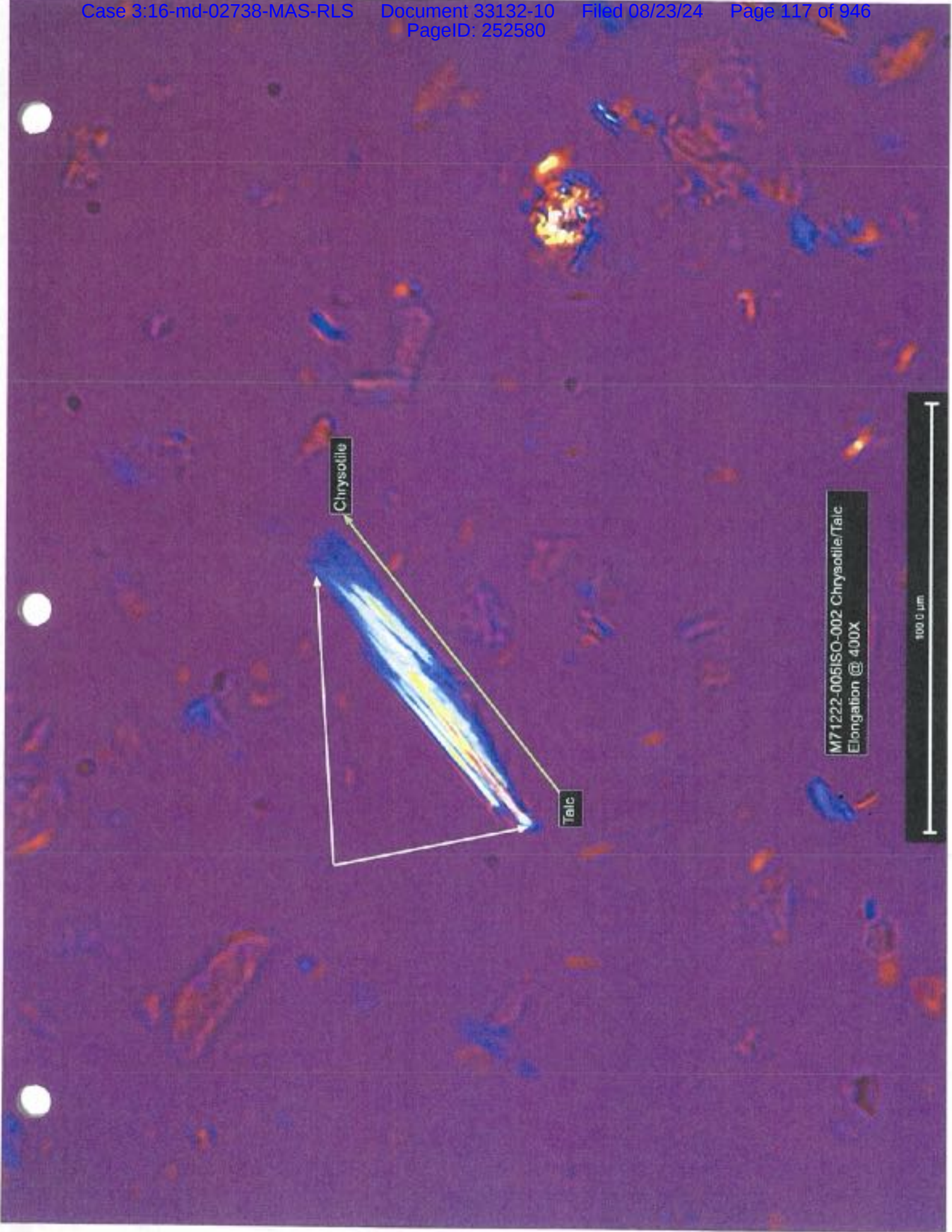


M71222-005ISO-002 Chrysotile/Talc
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

100.0 µm





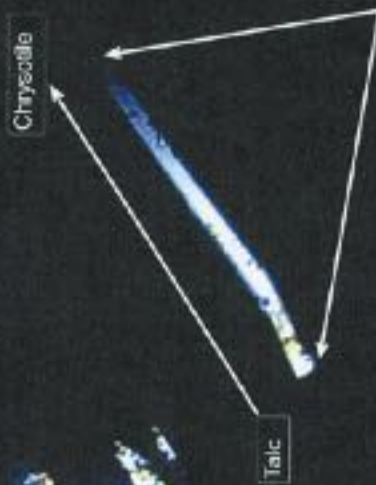


Chrysotile

Talc

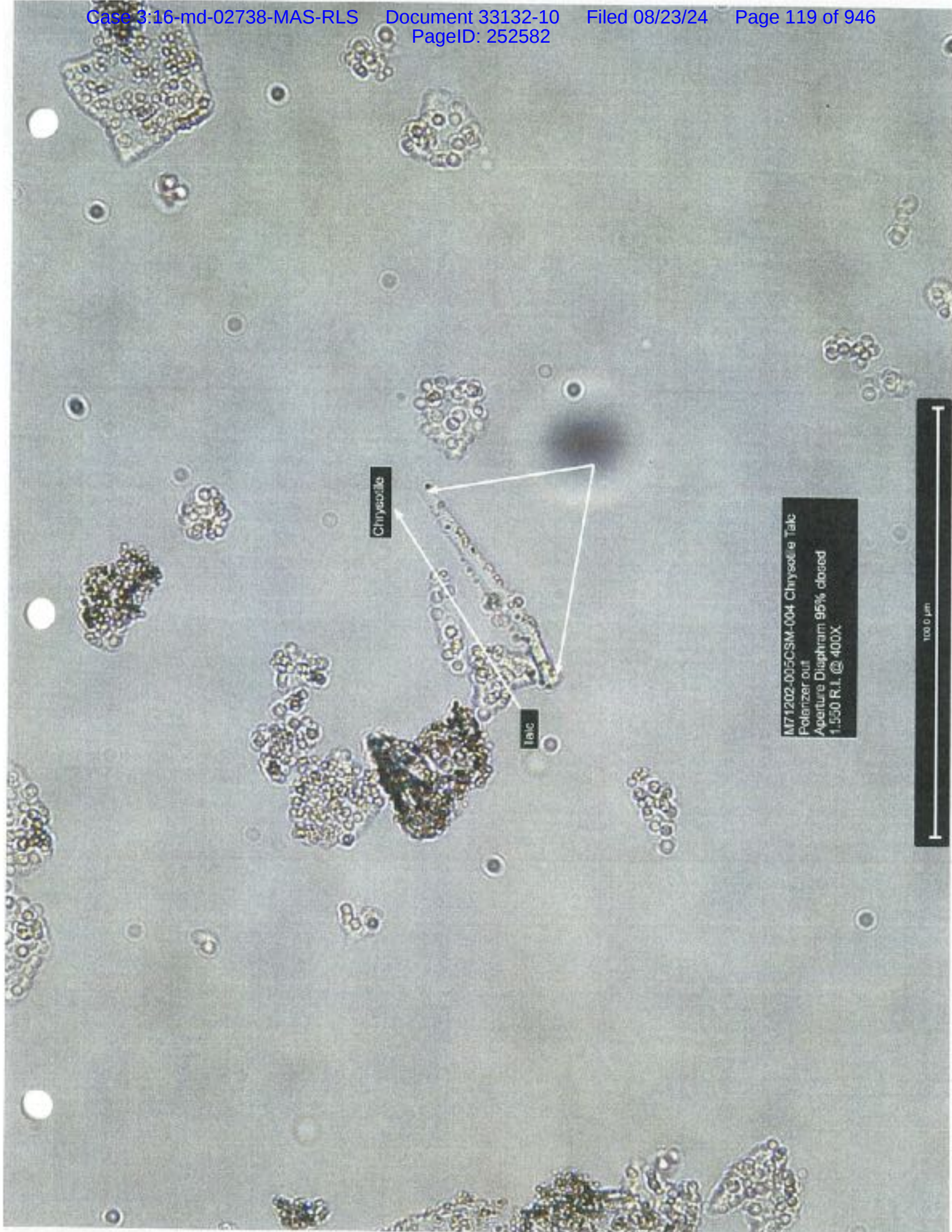
M71222-005ISO-002 Chrysotile/Talc
Elongation @ 400X

100.0 µm



M71202-005CSM-004 Chrysotile Talc
Crossed Polars

500 μ m

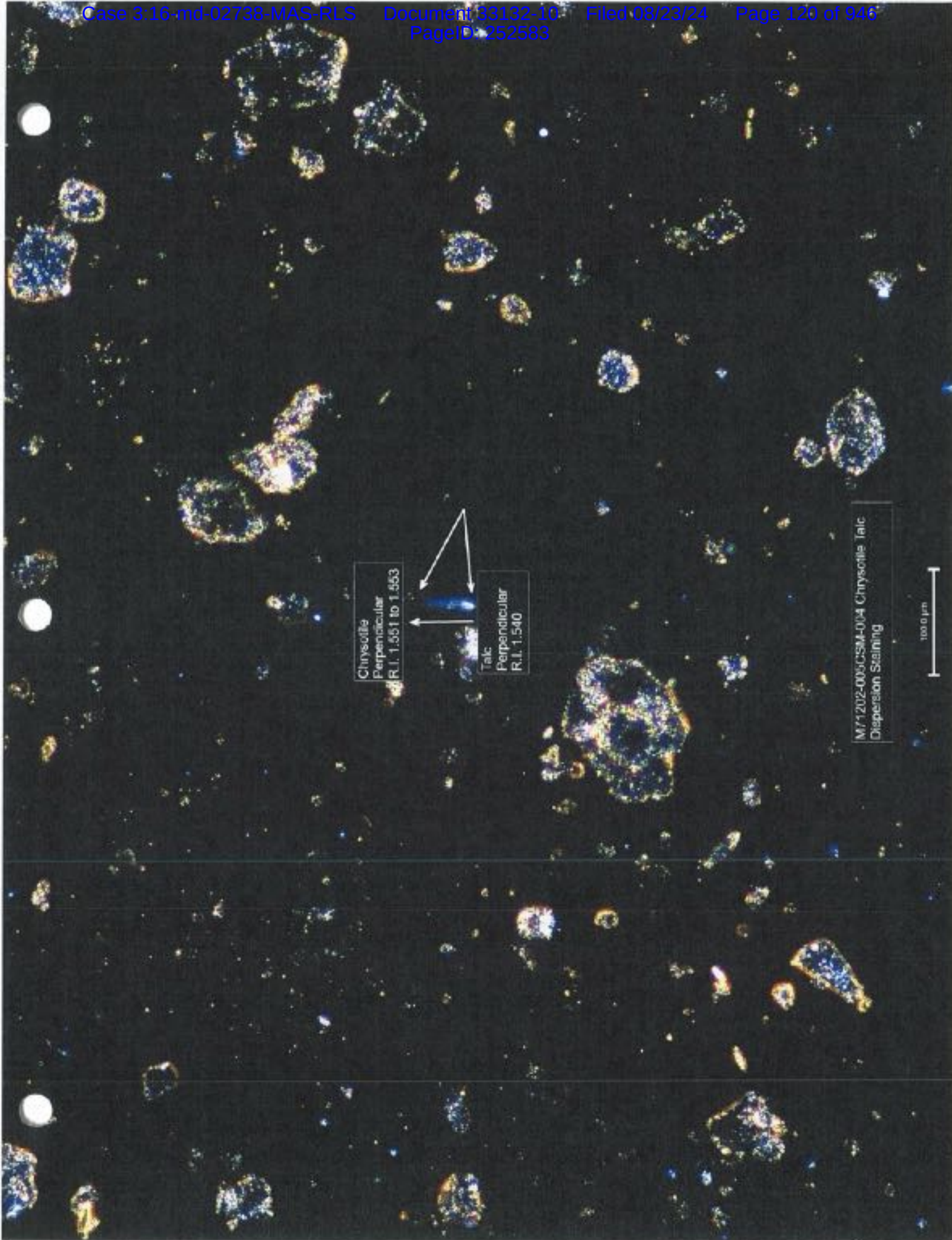


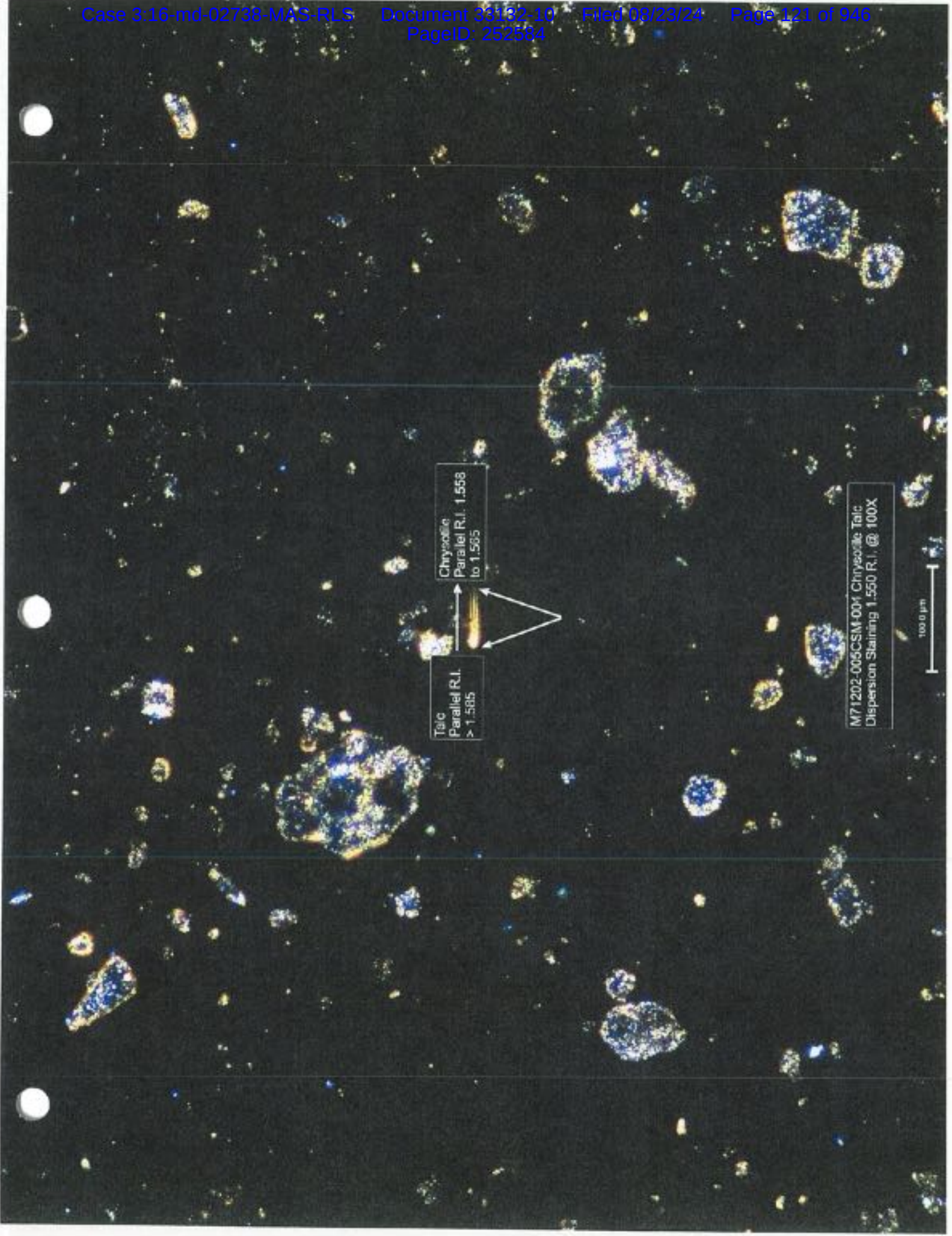
Chrysotile

Talc

M71202-035CSM-004 Chrysotile Talc
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

100 0 µm





Chrysotile
Parallel R.I. 1.553
to 1.565

Talc
Parallel R.I.
> 1.585

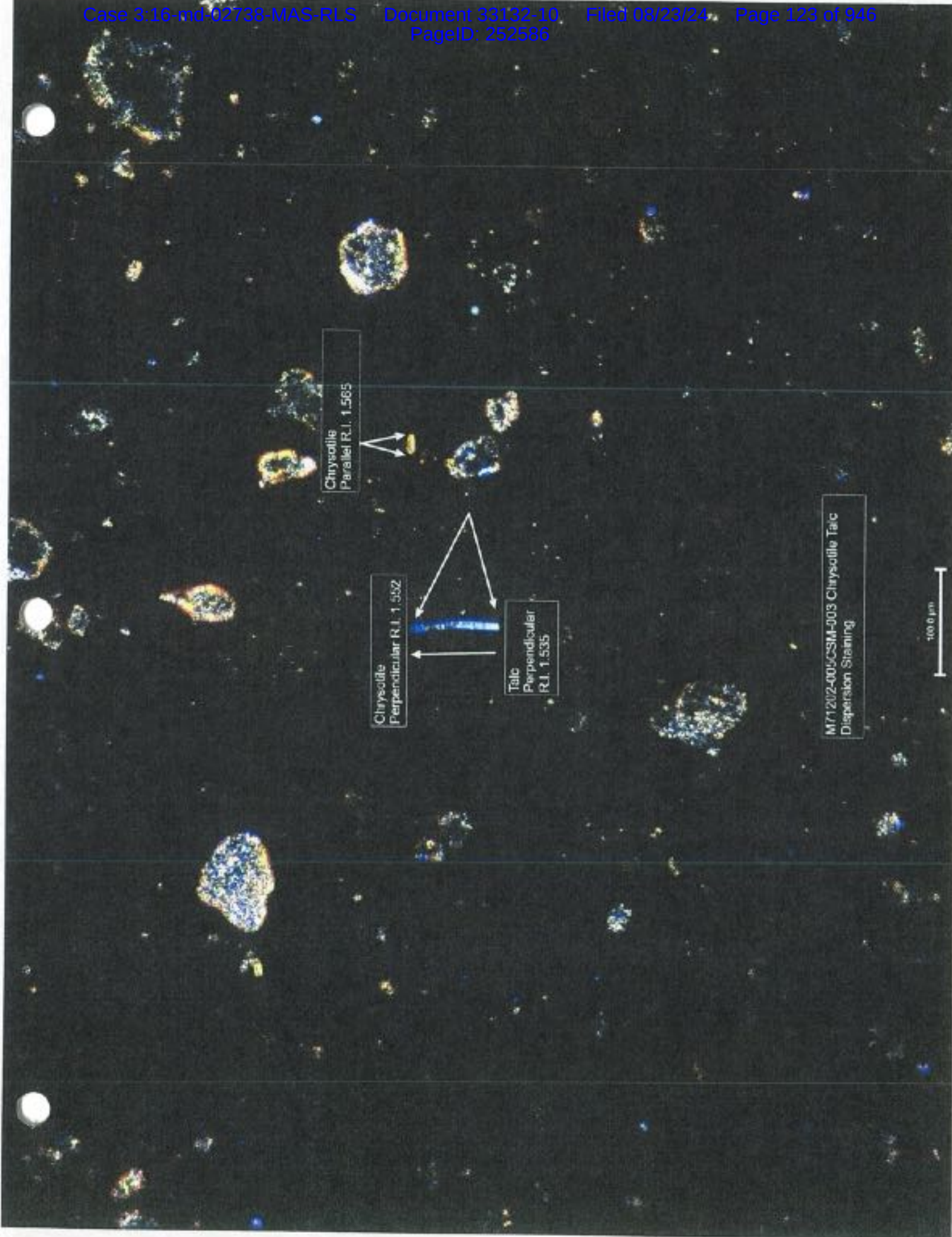
M71202-005CSM-001 Chrysotile Talc
Dispersion Staining 1.550 R.I. @ 100X

100.0 µm

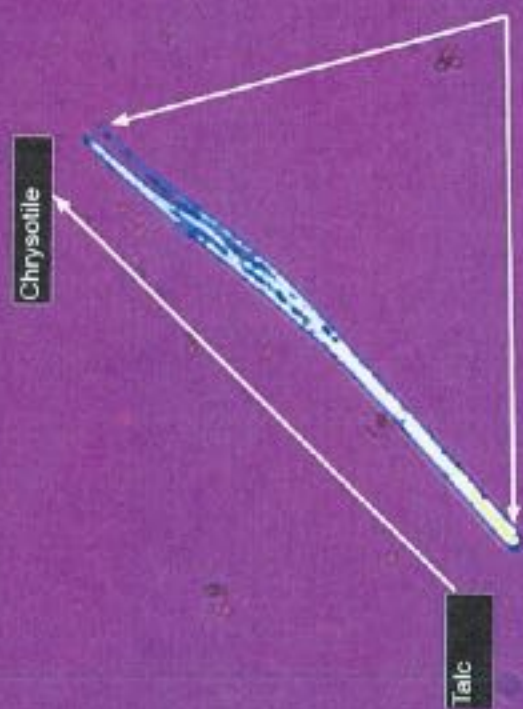


M71202-005C/SM-004 Chrysotile Talc
Elongation @ 400X



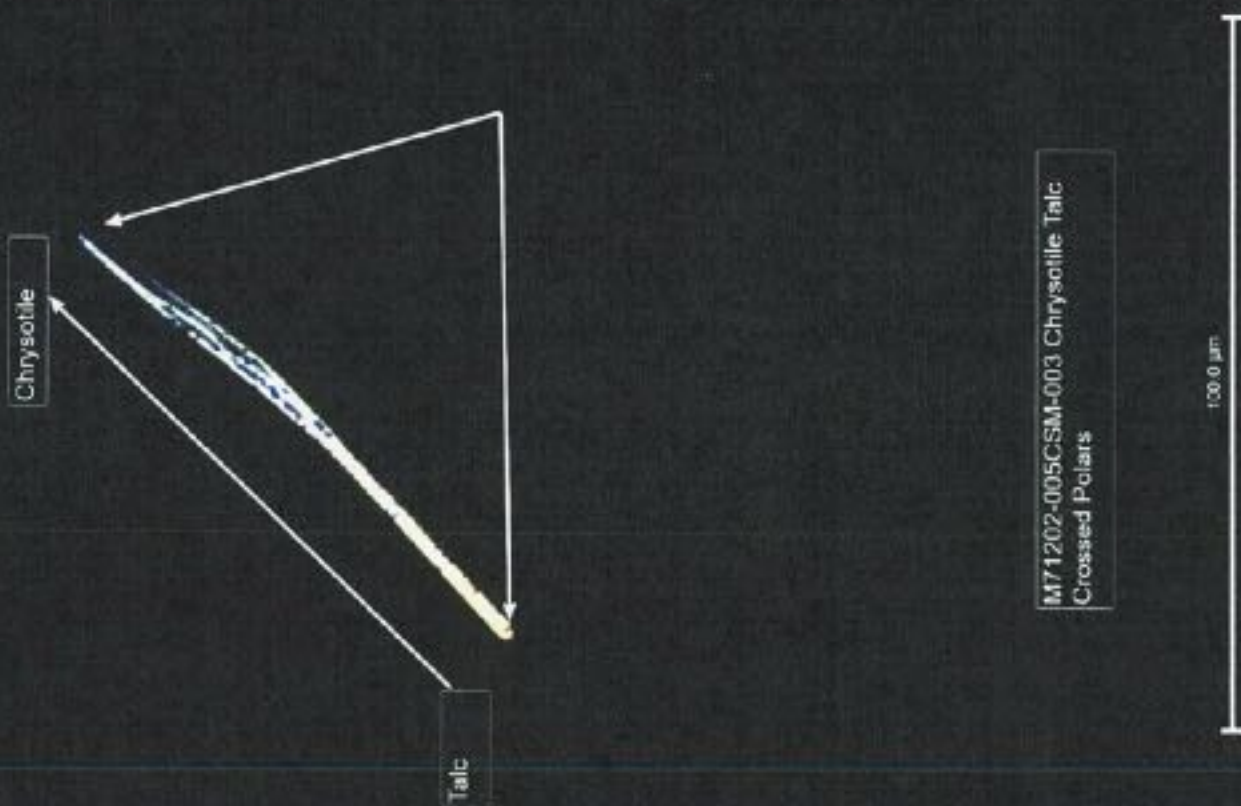




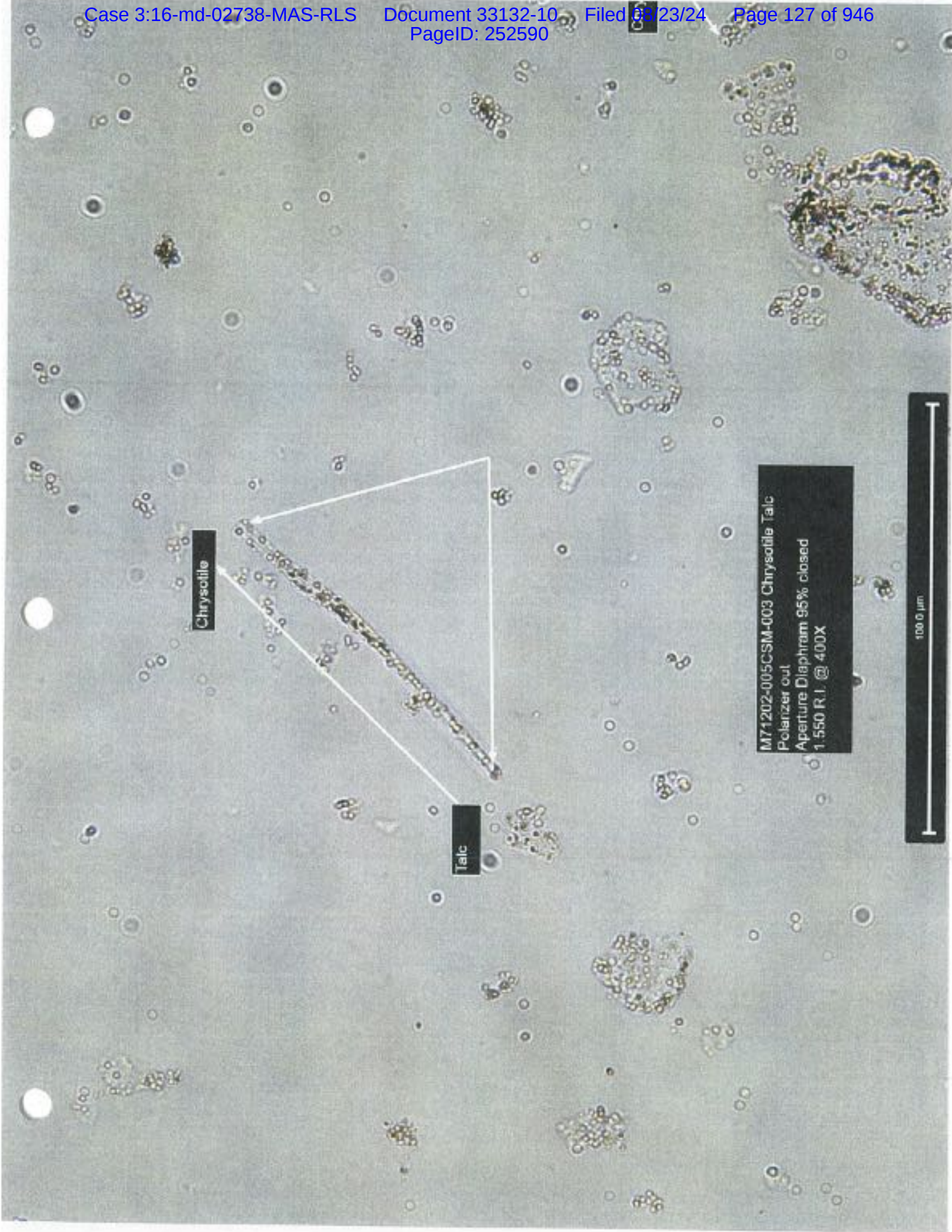


M71202-005CSM-003 Chrysotile Talc
Elongation @ 400X

100 μ m



M71202-005CSM-003 Chrysotile Talc
Crossed Polars

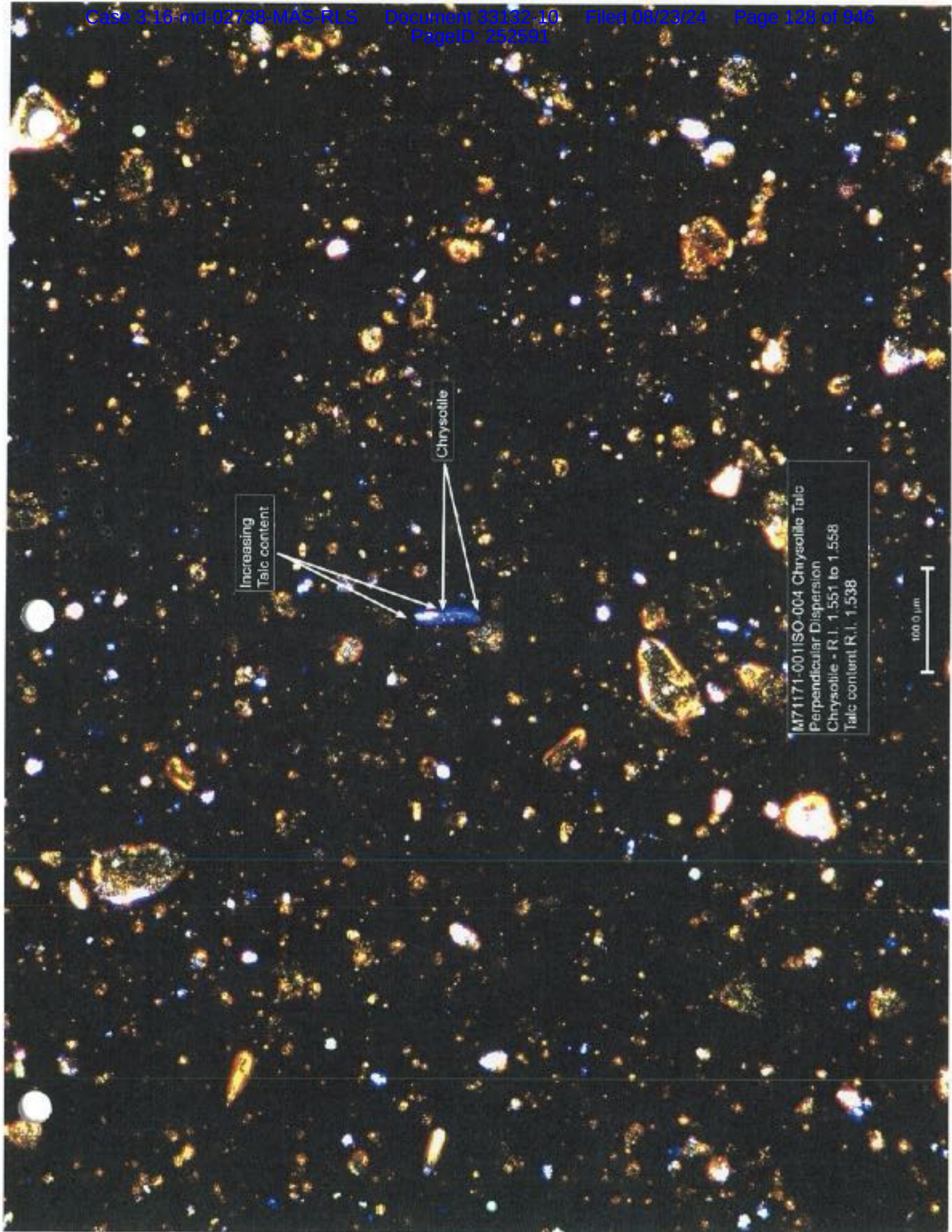


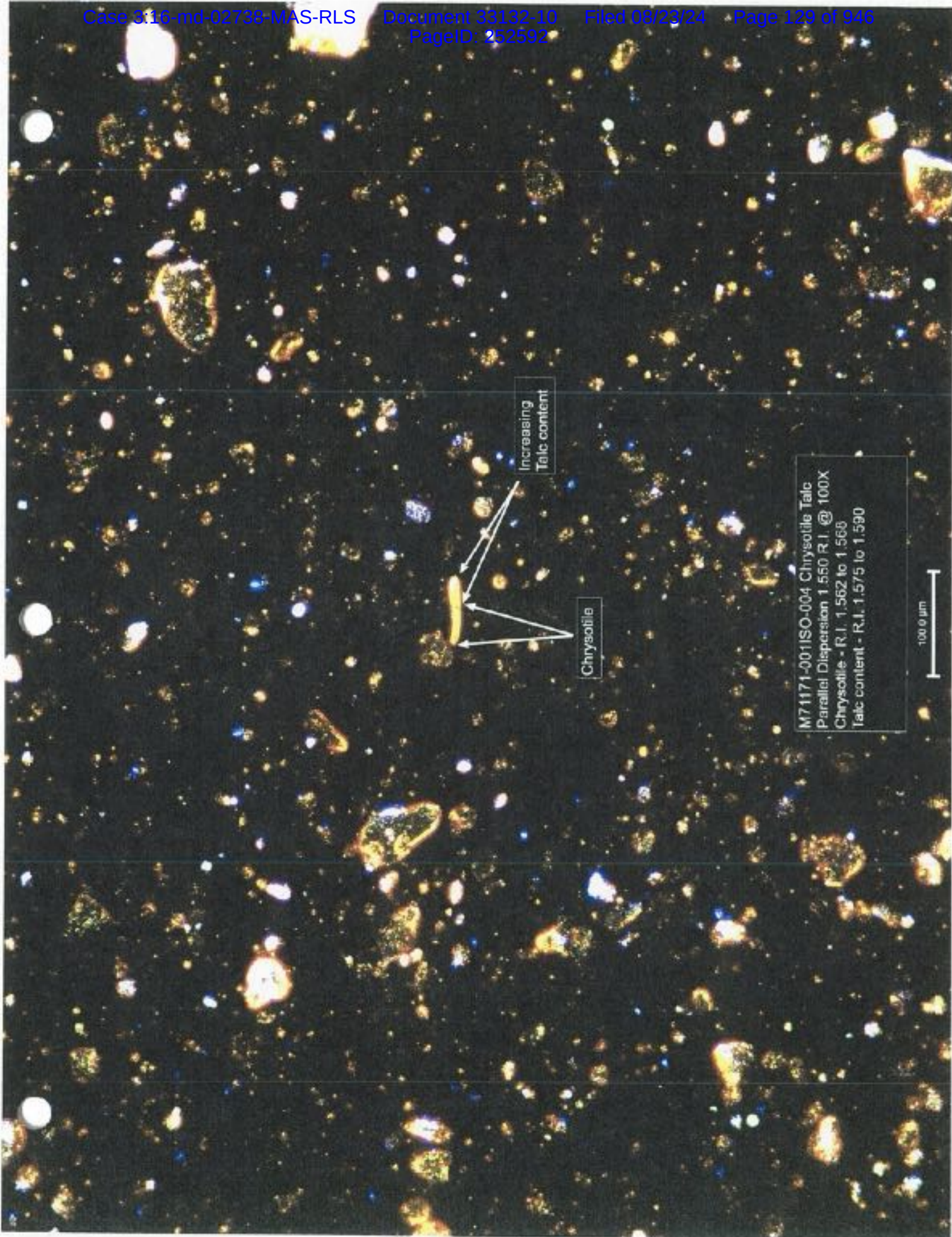
Chrysotile

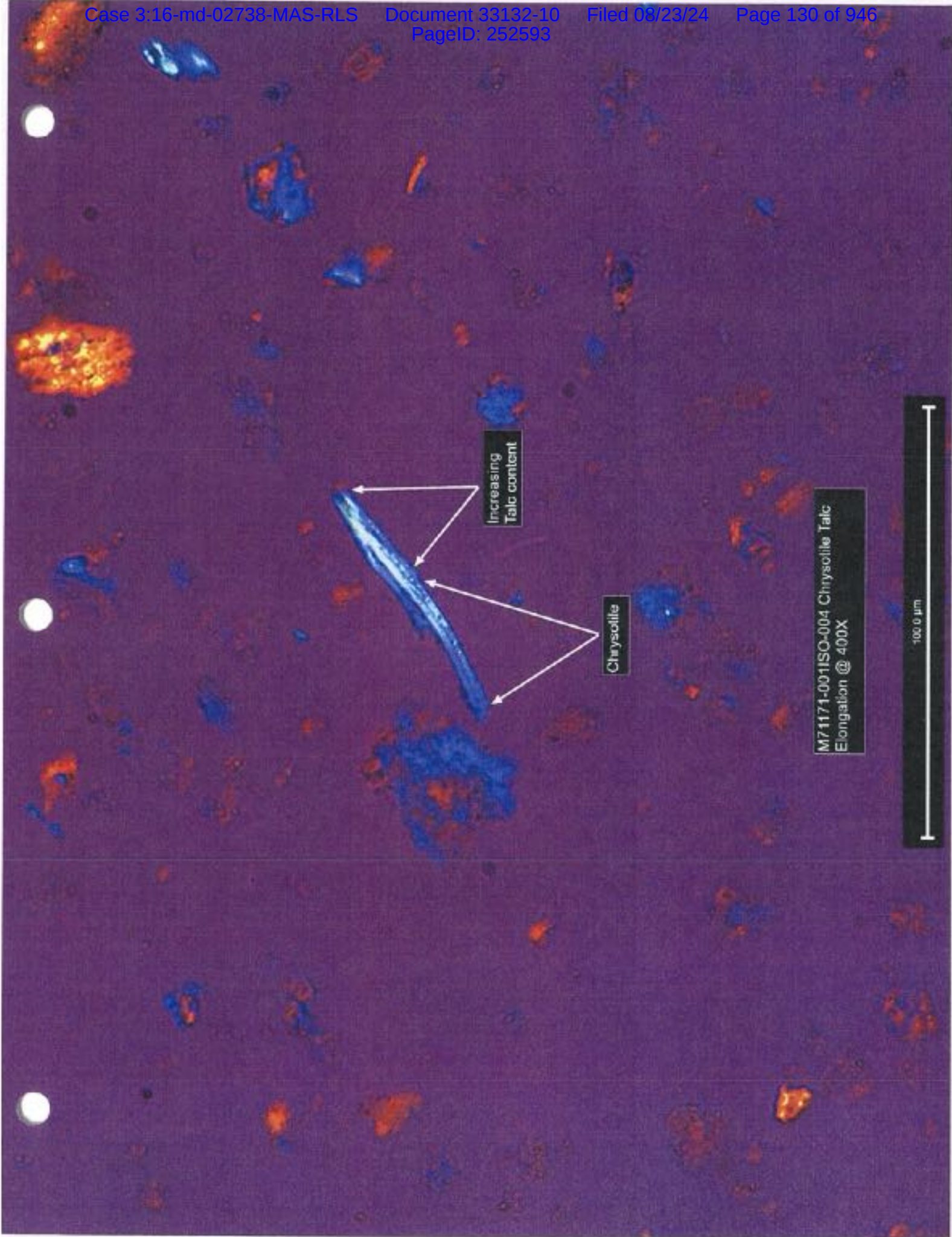
Talc

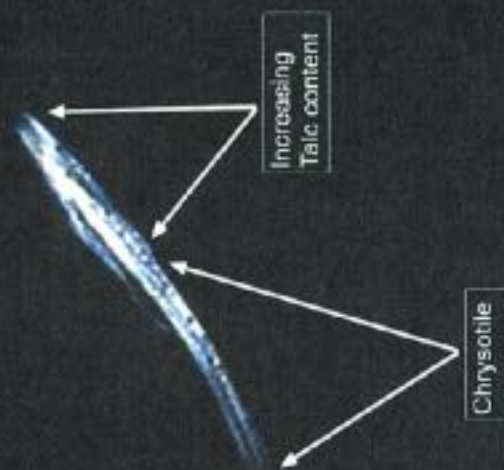
M71202-005CSM-003 Chrysotile Talc
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

100.0 µm



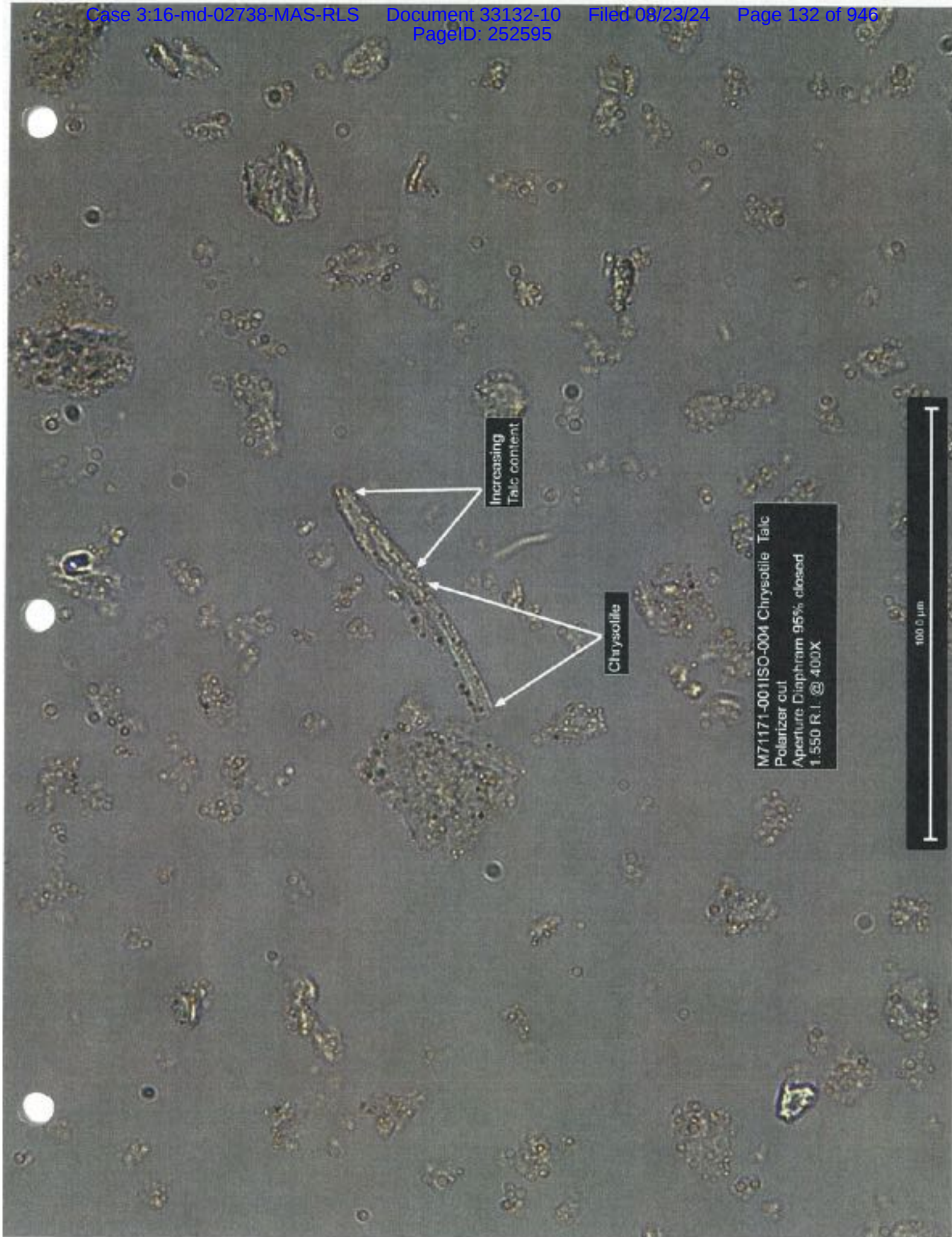




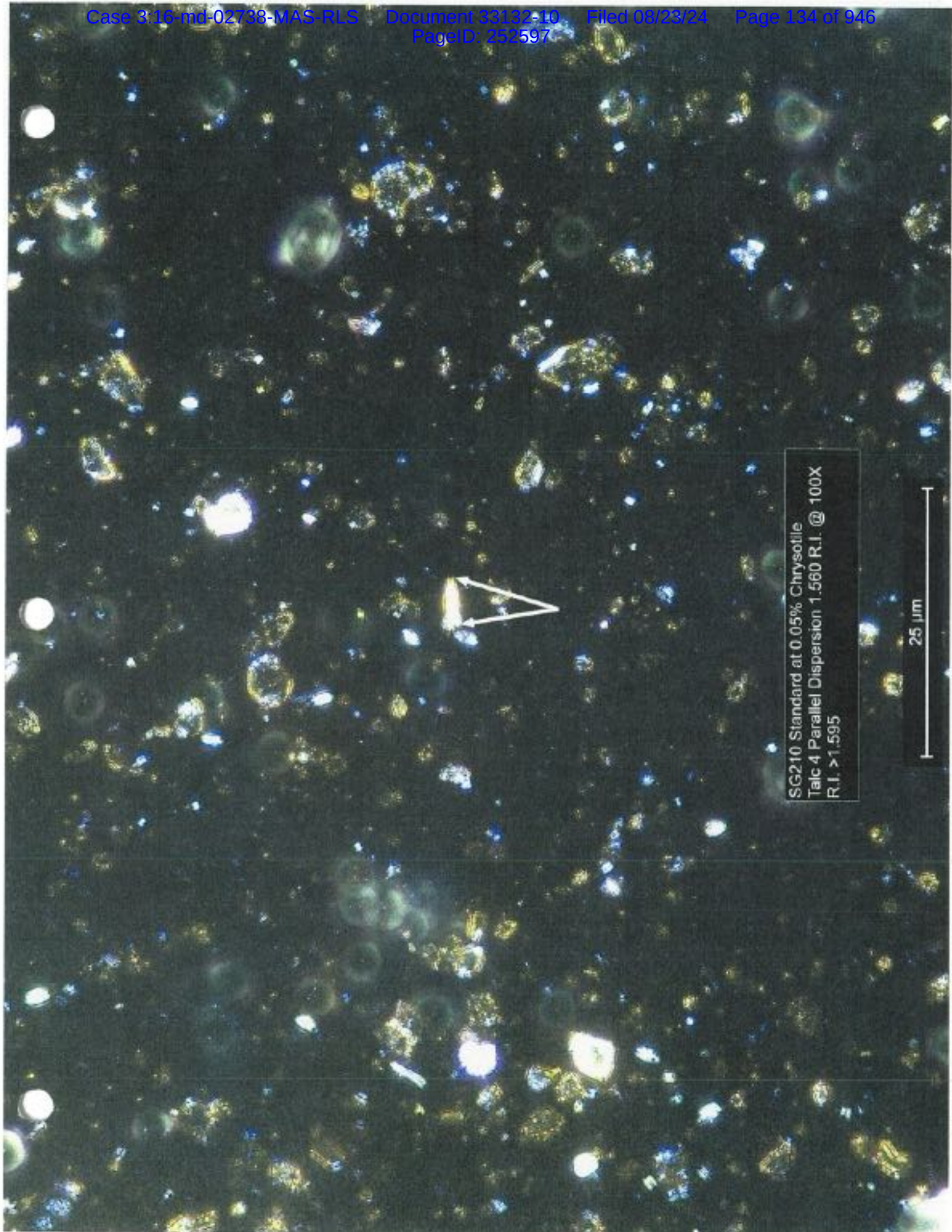


M71171-001 ISO-004 Chrysotile Talc
Crossed Polars

100.0 μ m



Section 3



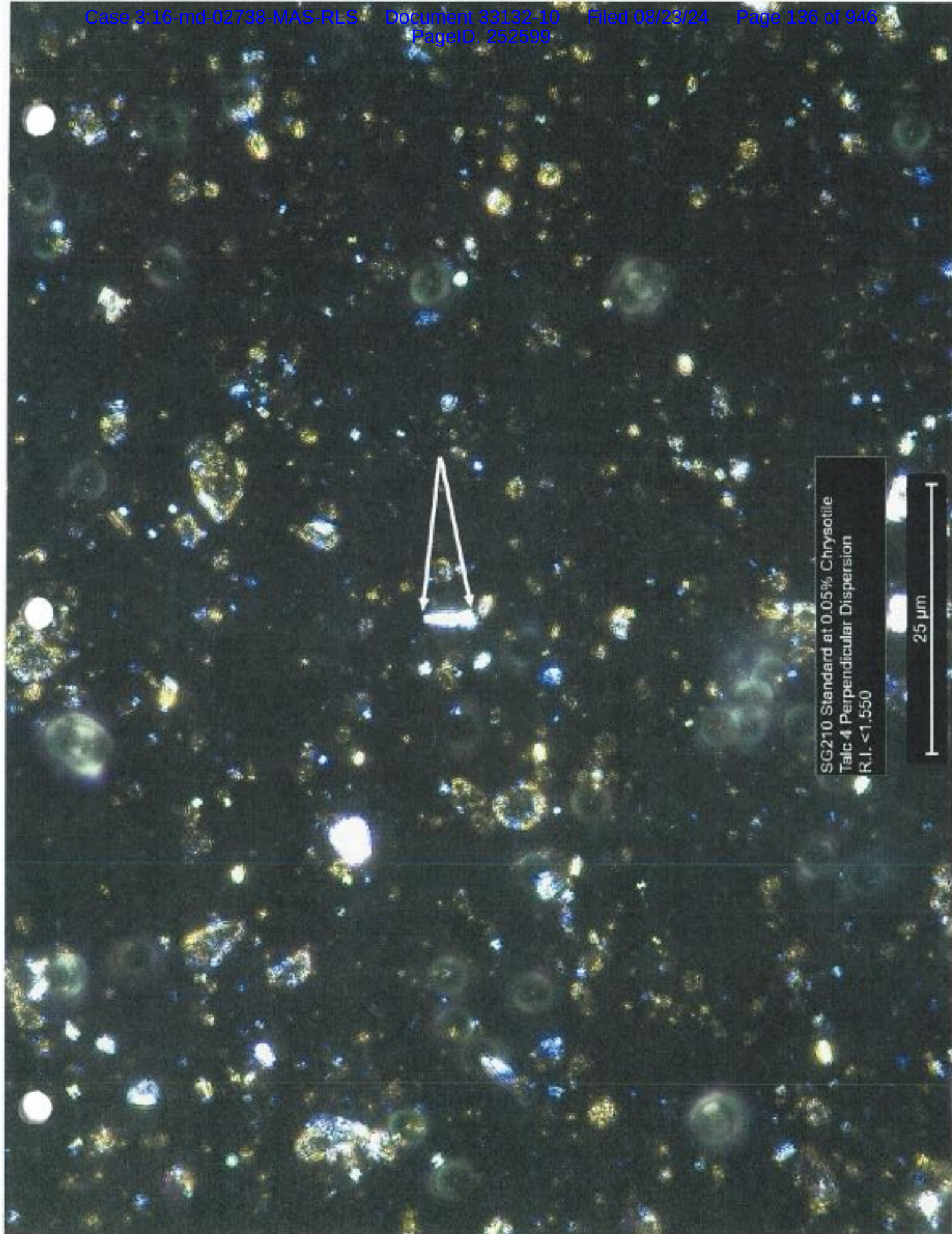
SG210 Standard at 0.05% Chrysotile
Talc 4 Parallel Dispersion 1.560 R.I. @ 100X
R.I. > 1.595

25 μm



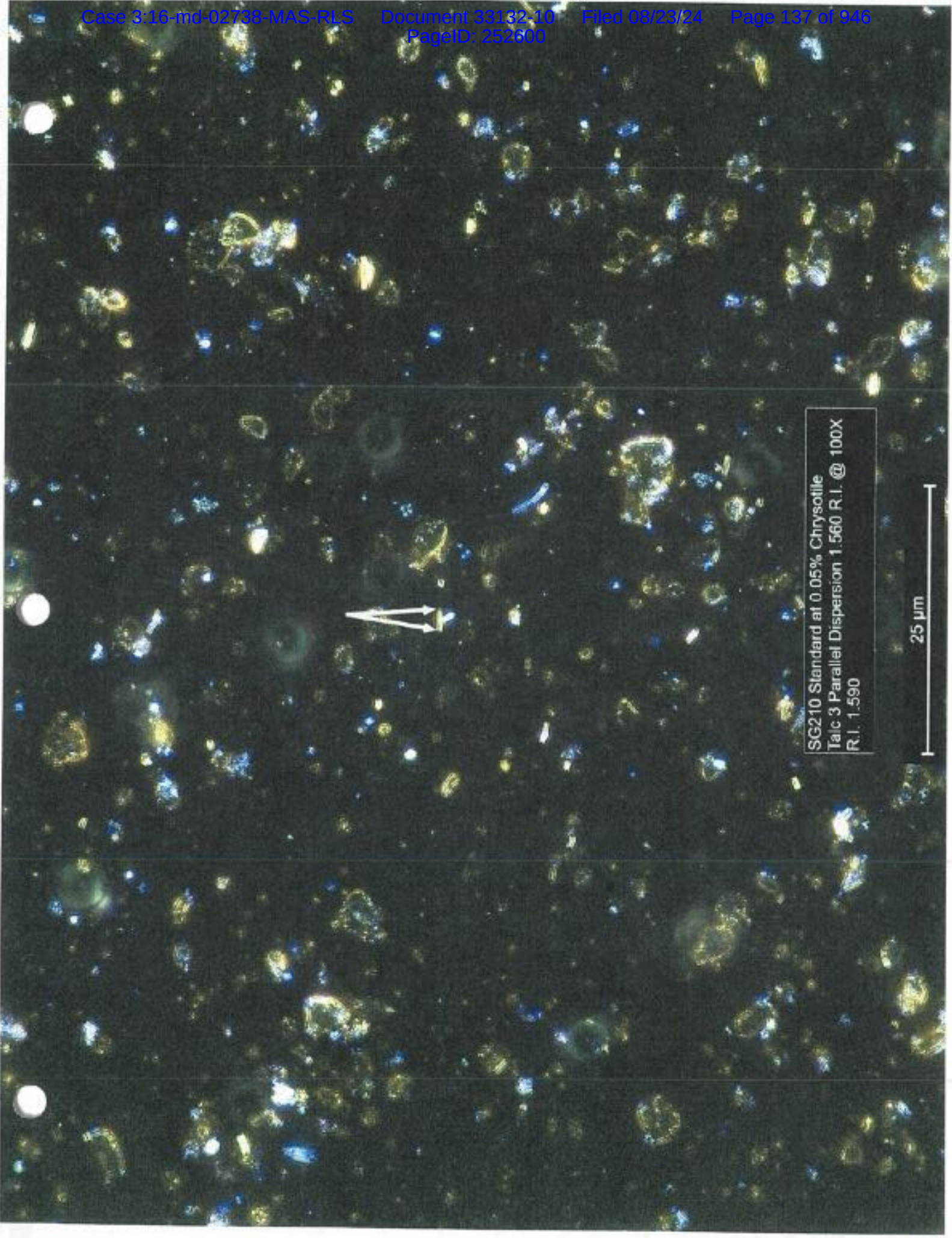
SG210 Standard at 0.05% Chrysotile
Talc 4 Elongation @ 630X

2.5 μ m



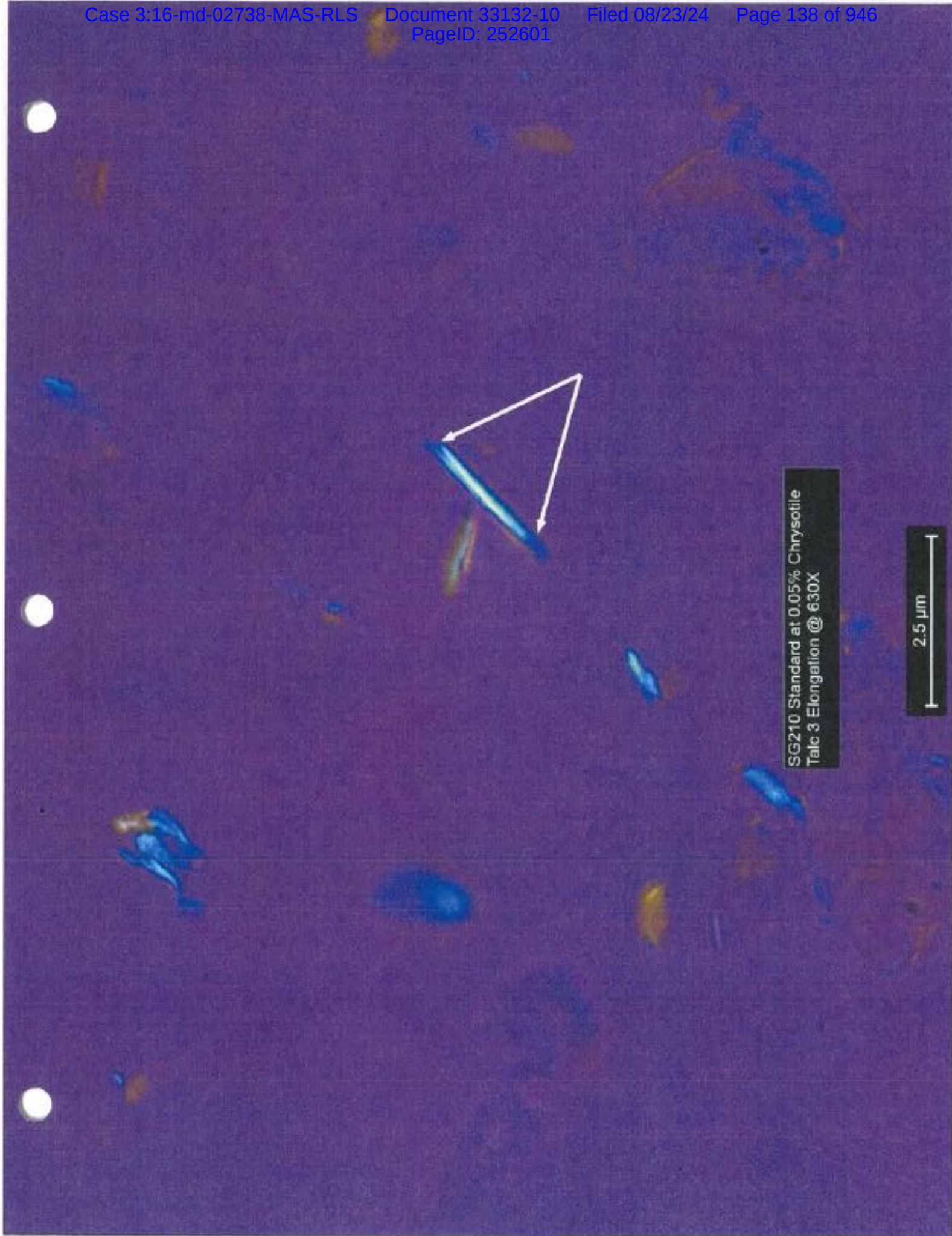
SG210 Standard at 0.05% Chrysotile
Talc-4 Perpendicular Dispersion
R.I. <1.550

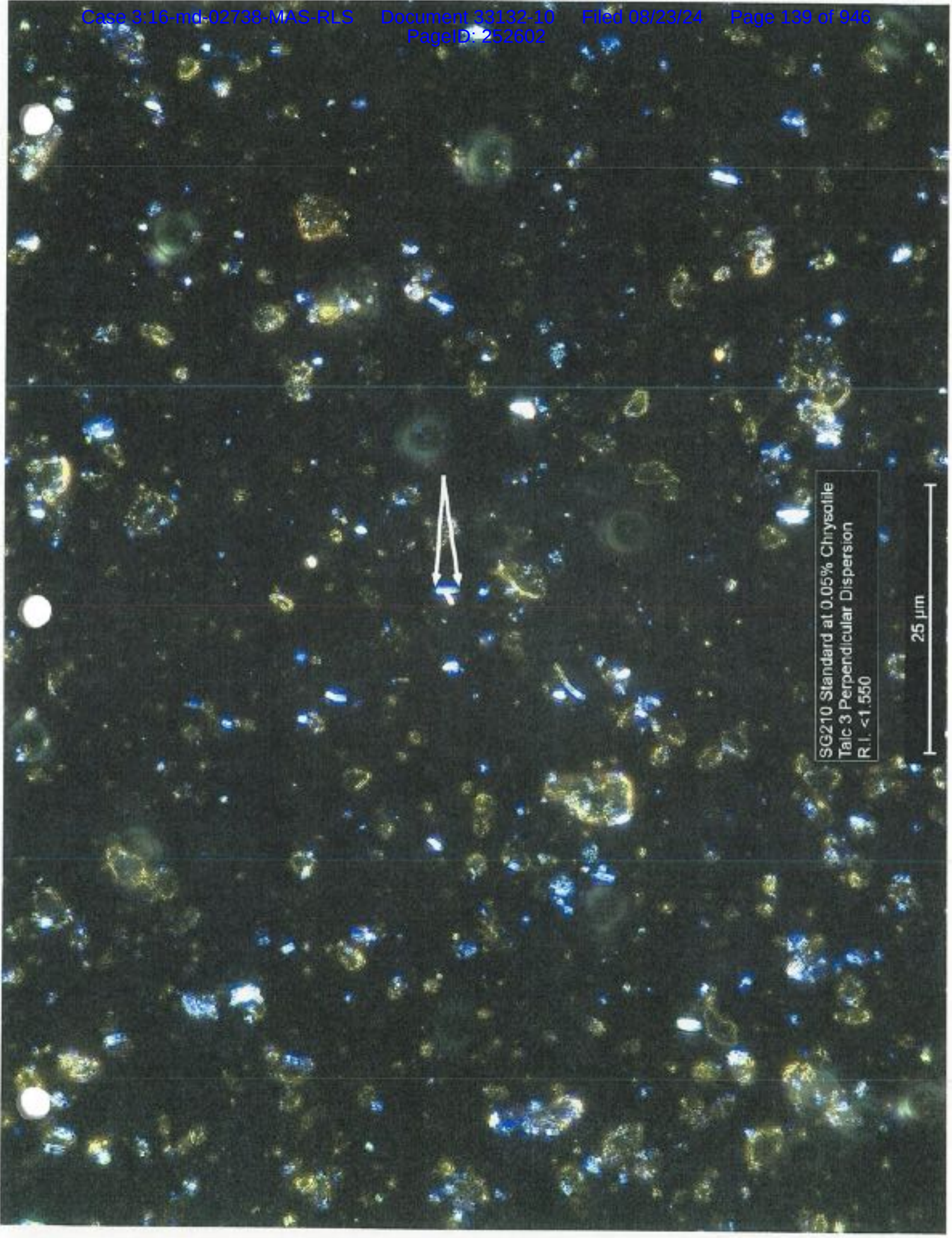
25 μ m



SG210 Standard at 0.05% Chrysotile
Talc 3 Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.590

25 μm





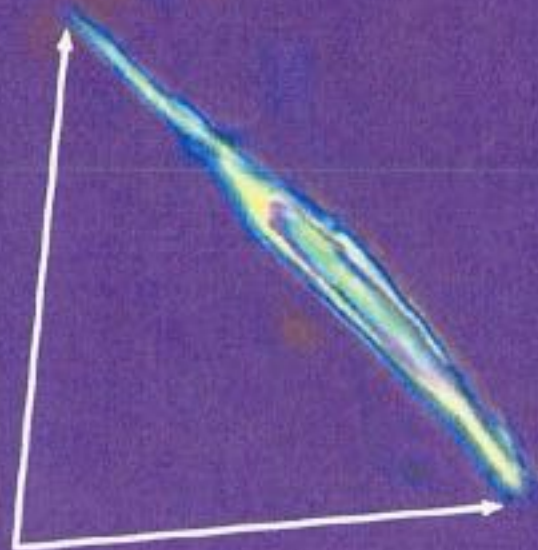
SG210 Standard at 0.05% Chrysotile
Talc 3 Perpendicular Dispersion
R.I. <1.550

25 μm



SG210 Standard at 0.05% Chrysotile
Talc 2 Parallel Dispersion 1.560 R.I. @ 100X
R.I. > 1.590

25 μm



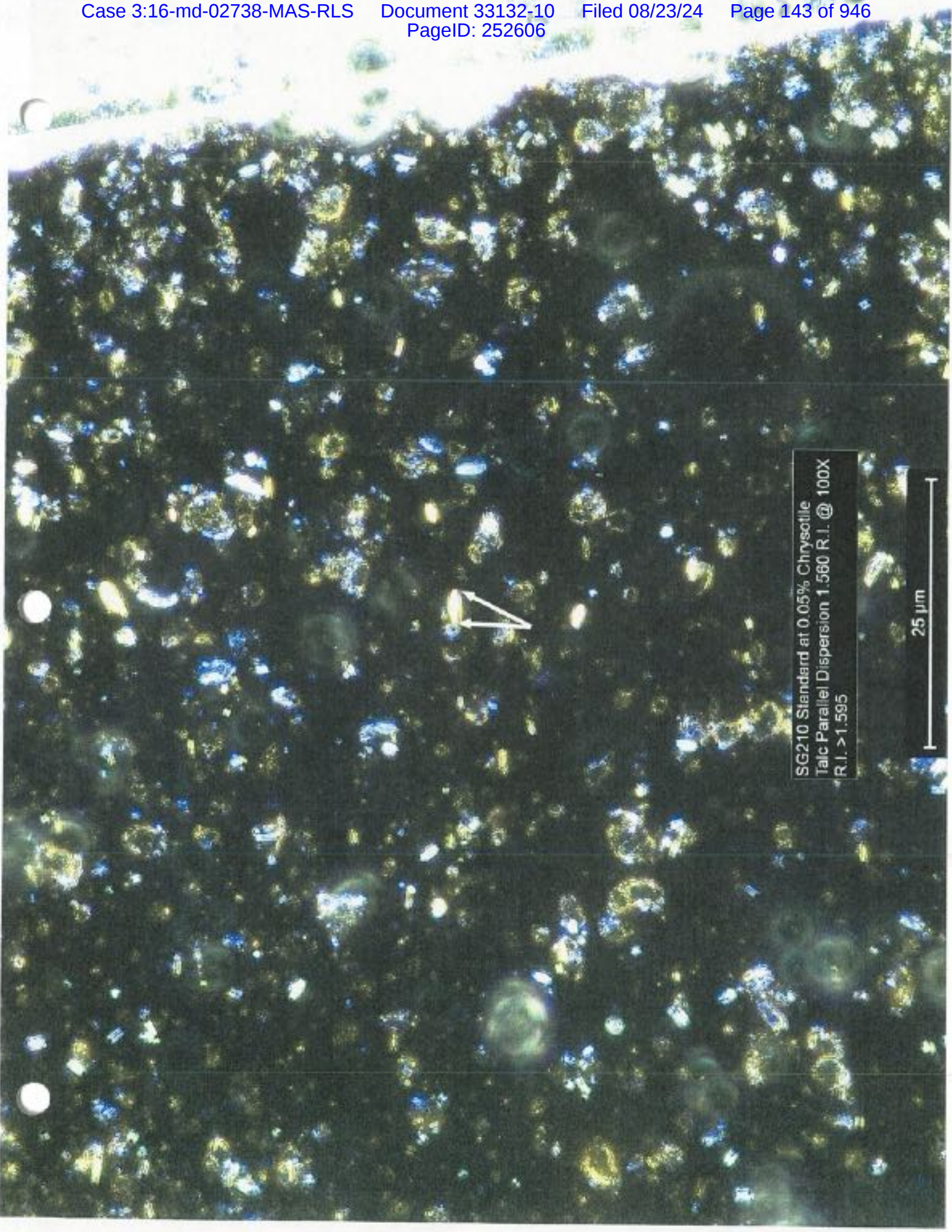
SG210 Standard at 0.05% Chrysotile
Talc 2 Elongation @ 630X

2.5 μ m



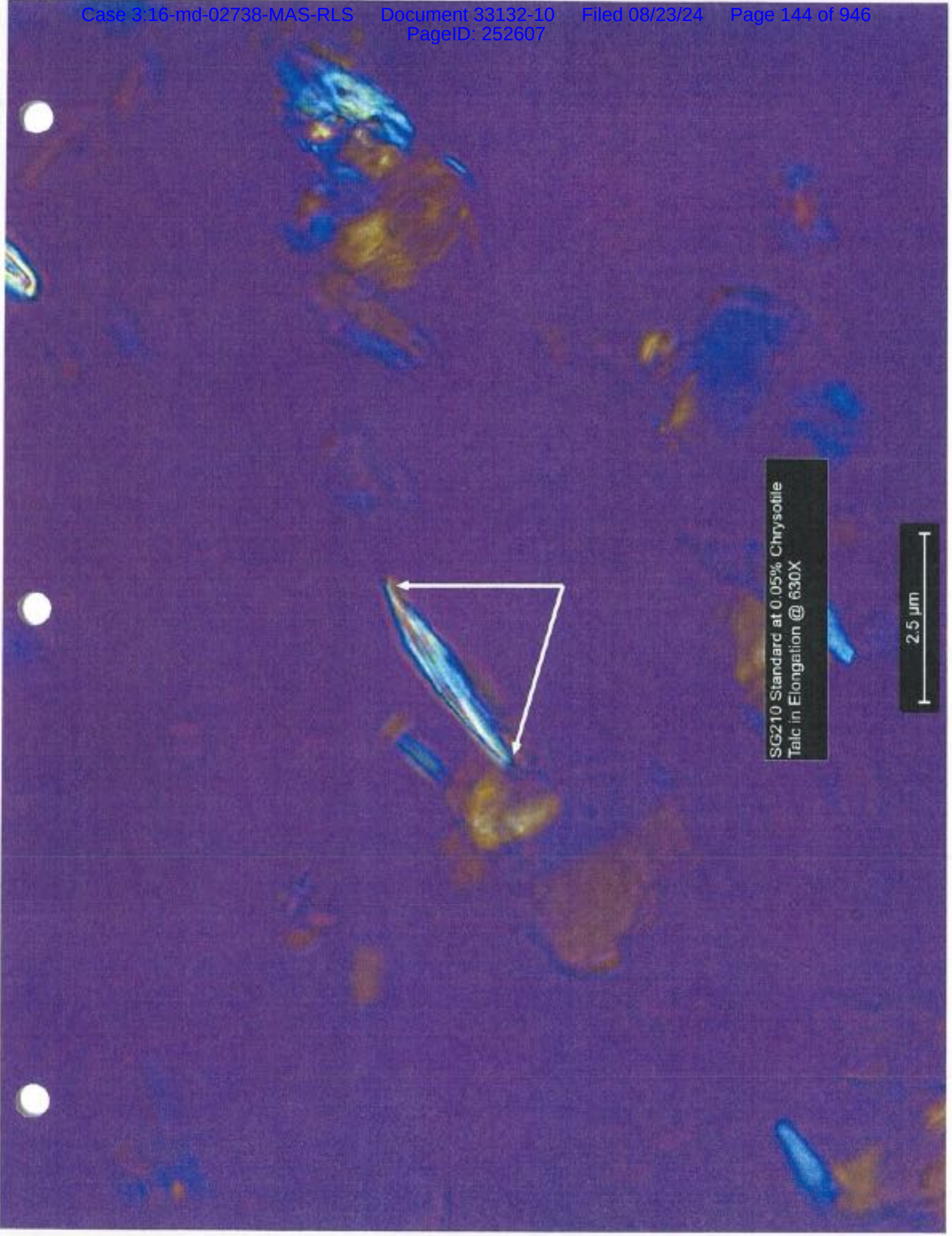
SG210 Standard at 0.05% Chrysotile
Talc 2 Perpendicular Dispersion
R.I. <1.550

25 μm



SG210 Standard at 0.05% Chrysotile
Talc Parallel Dispersion 1.560 R.I. @ 100X
R.I. >1.595

25 μm



SG210 Standard at 0.05% Chrysotile
Talc in Elongation @ 630X

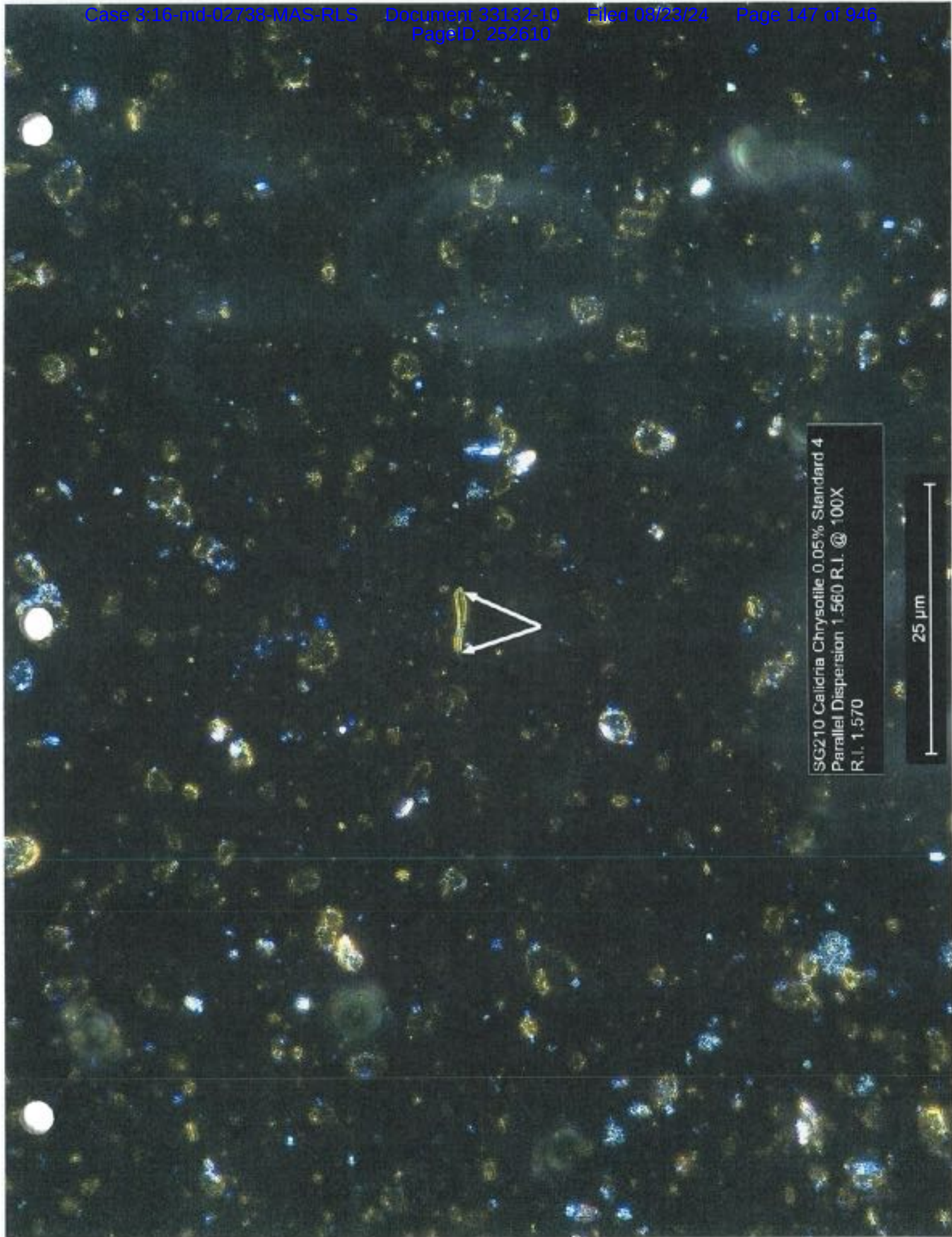
2.5 μm



SG210 Standard at 0.05% Chrysotile
Talc Perpendicular Dispersion
R.I. <1.550

25 μm

Section 4






SG210 Calidria Chrysotile 0.05% Standard 4
Elongation @ 630X

2.5 μm



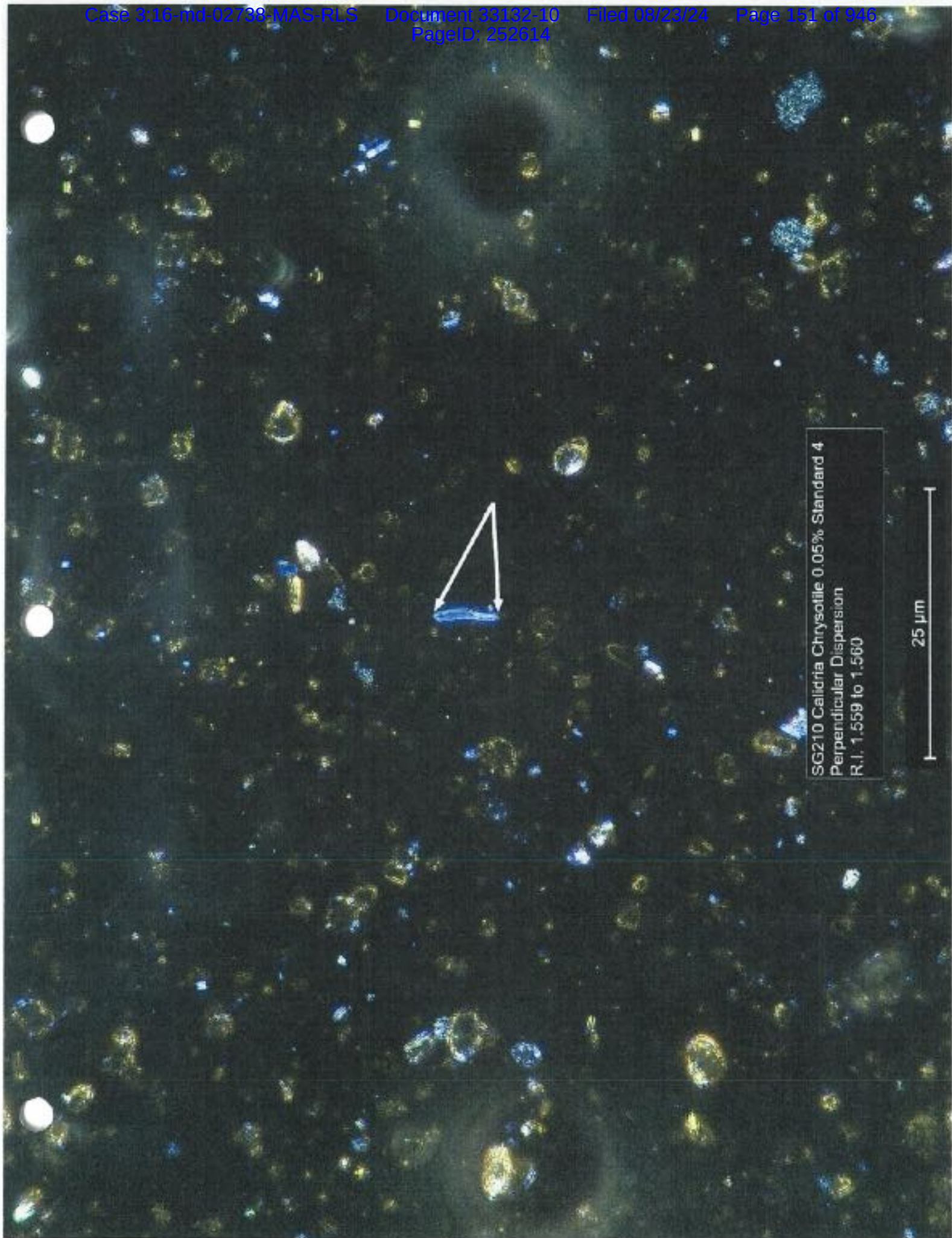
SG210 Calidra Chrysotile 0.05% Standard 4
Crossed Polars @ 630X

2.5 μ m



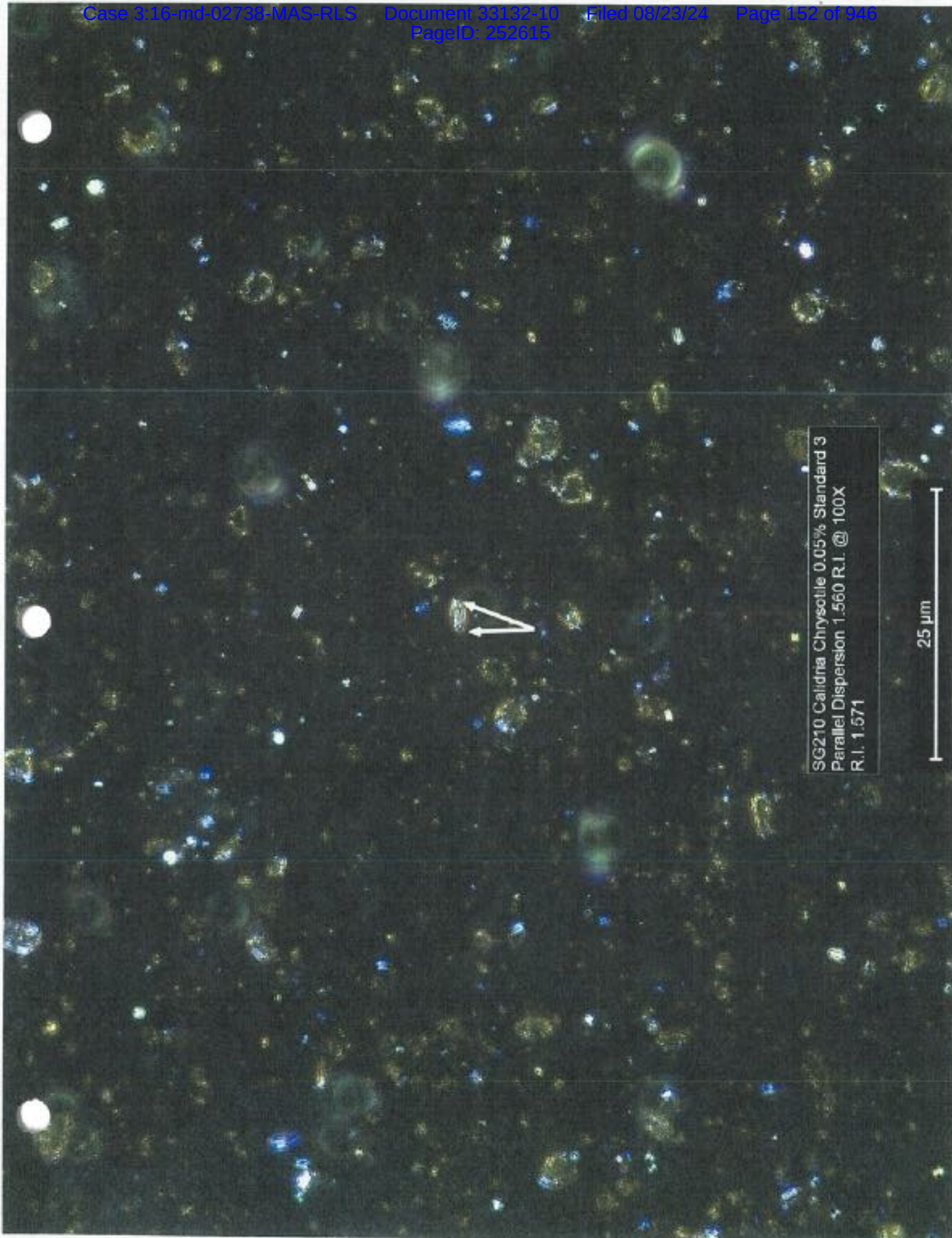
SG210 Calidria Chrysotile 0.05% Standard 4
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X

2.5 μ m



SG210 Calidria Chrysotile 0.05% Standard 4
Perpendicular Dispersion
R.I. 1.559 to 1.560

25 µm

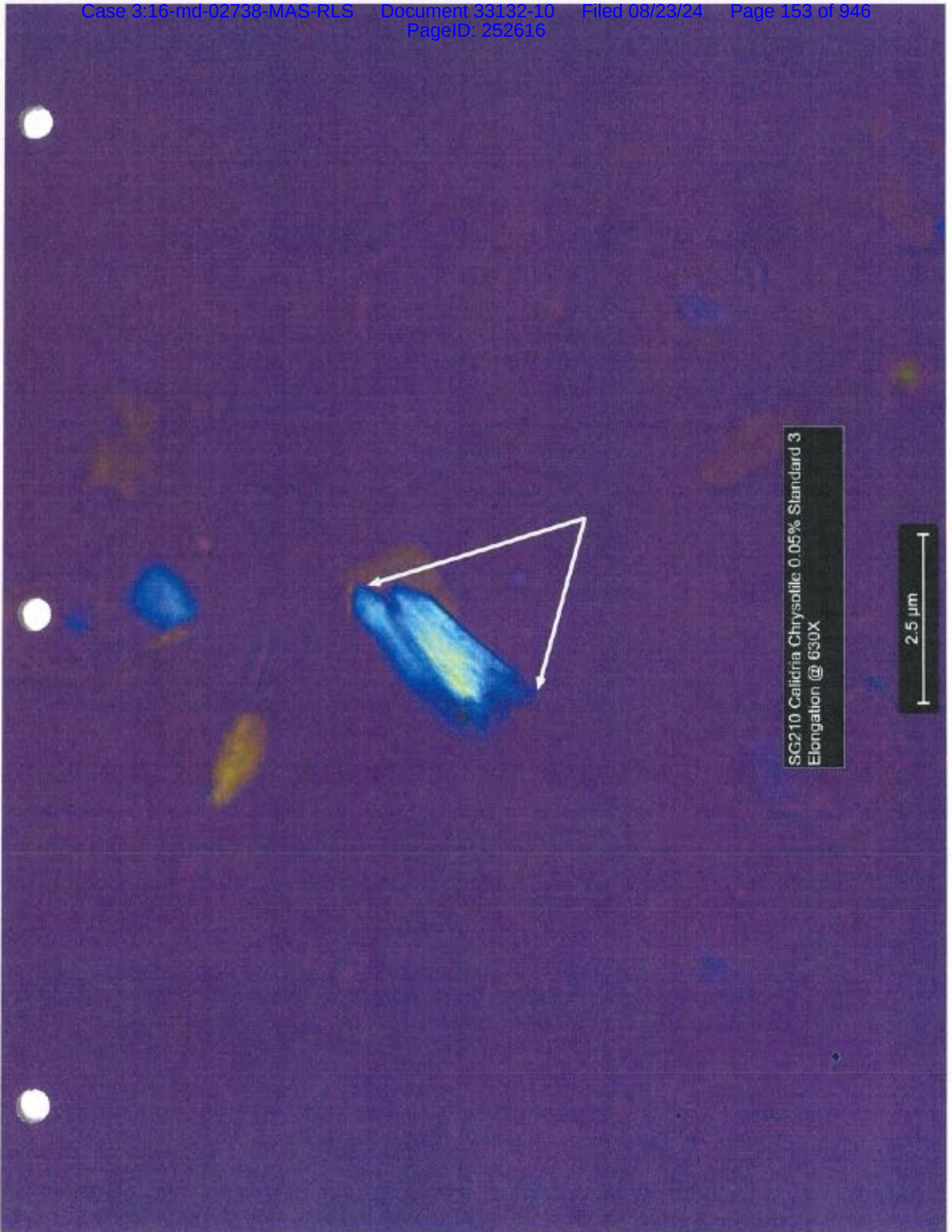


SG210 Calidna Chrysotile 0.05% Standard 3
Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.571

25 μm

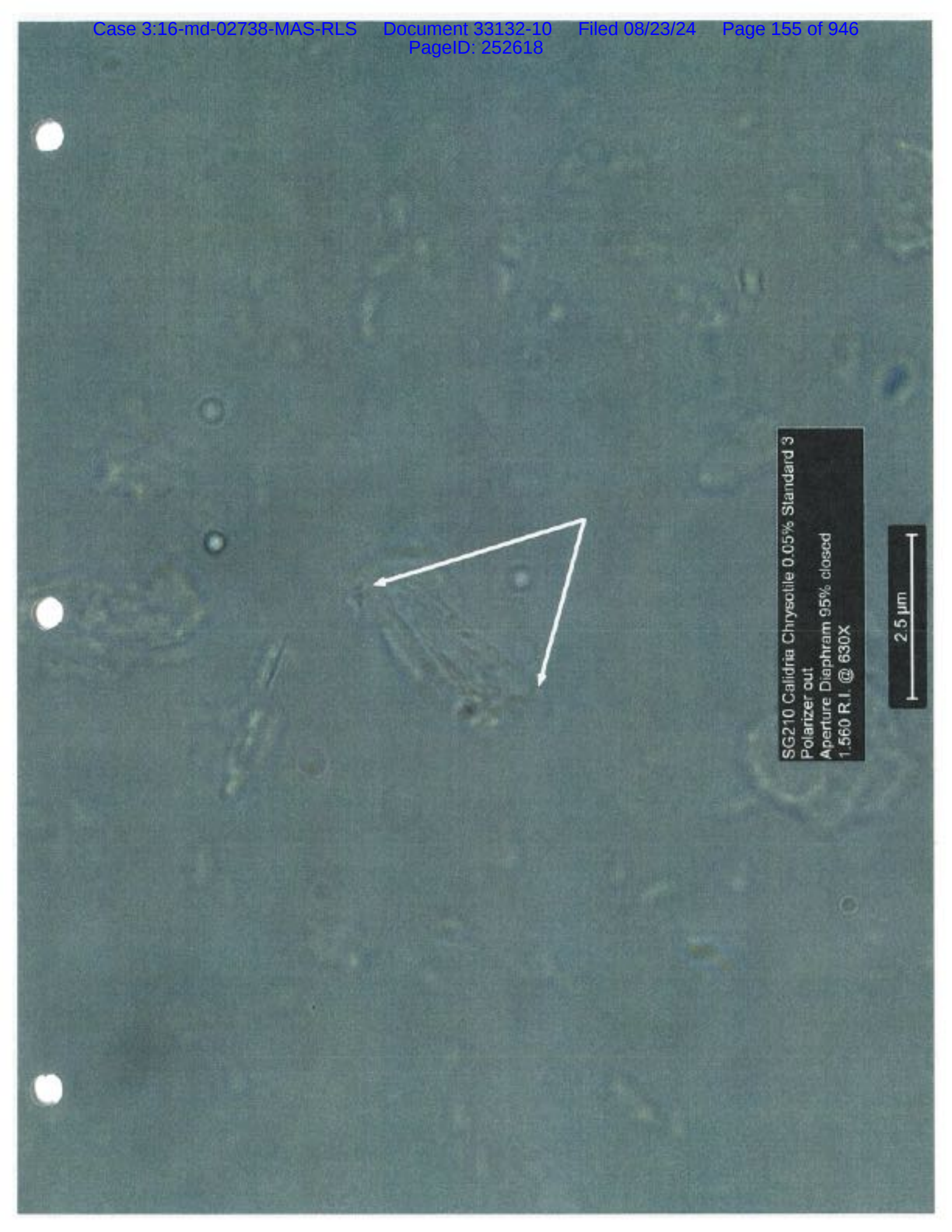
SG210 Calicoria Chrysotile 0.05% Standard 3
Elongation @ 630X

2.5 μm



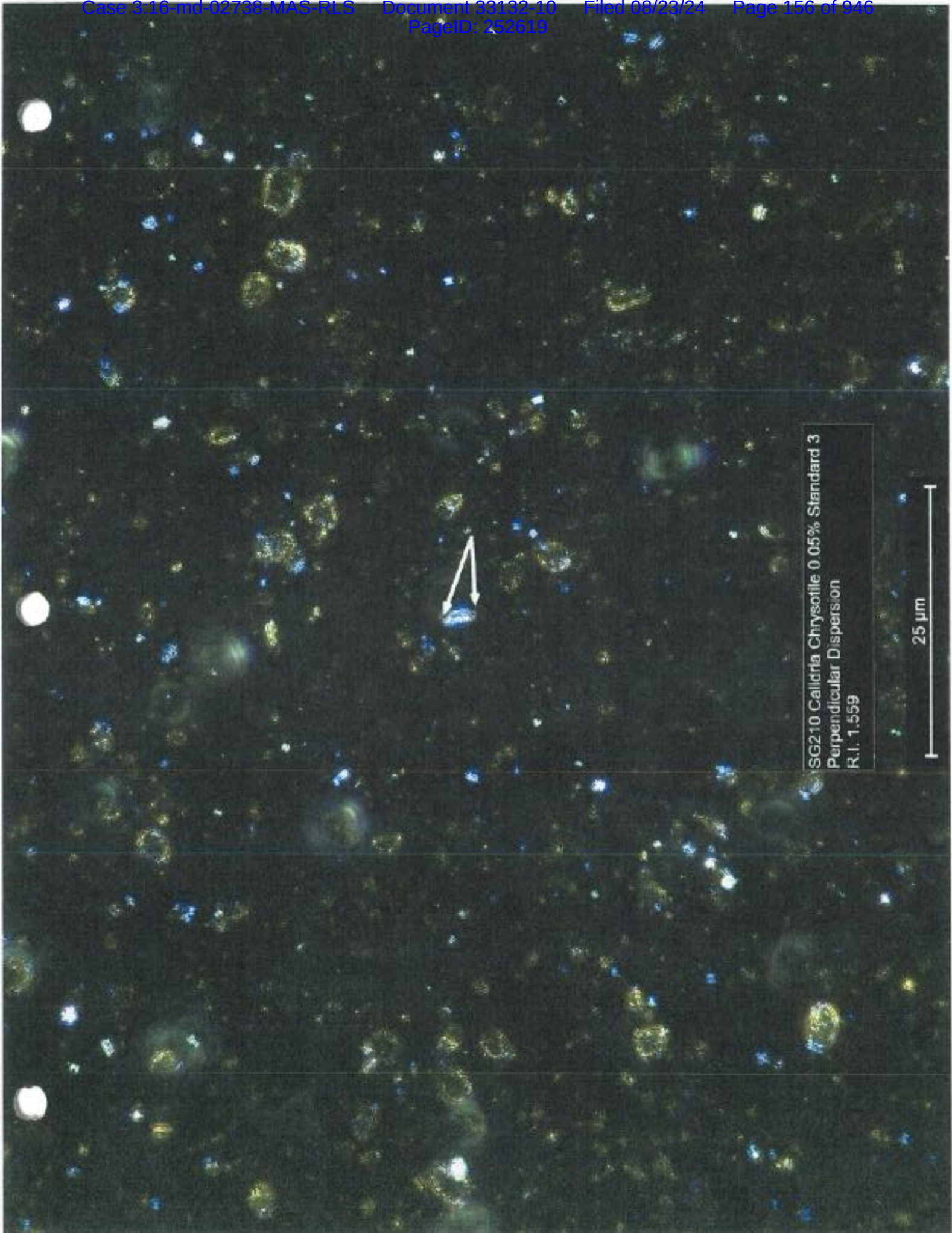
SG210 Calidria Chrysotile 0.05% Standard 3
Crossed Polars @ 630X

2.5 μ m



SG210 Calidria Chrysotile 0.05% Standard 3
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X

2.5 μ m



SG210 Calidria Chrysoile 0.05% Standard 3
Perpendicular Dispersion
R.I. 1.559

25 μm



SG210 Calidria Chrysotile 0.05% Standard 2
Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.571 / impacted by bundle thickness

25 μ m

SG210 Calidria Chrysotile 0.05% Standard 2
Elongation @ 630X


2.5 μ m





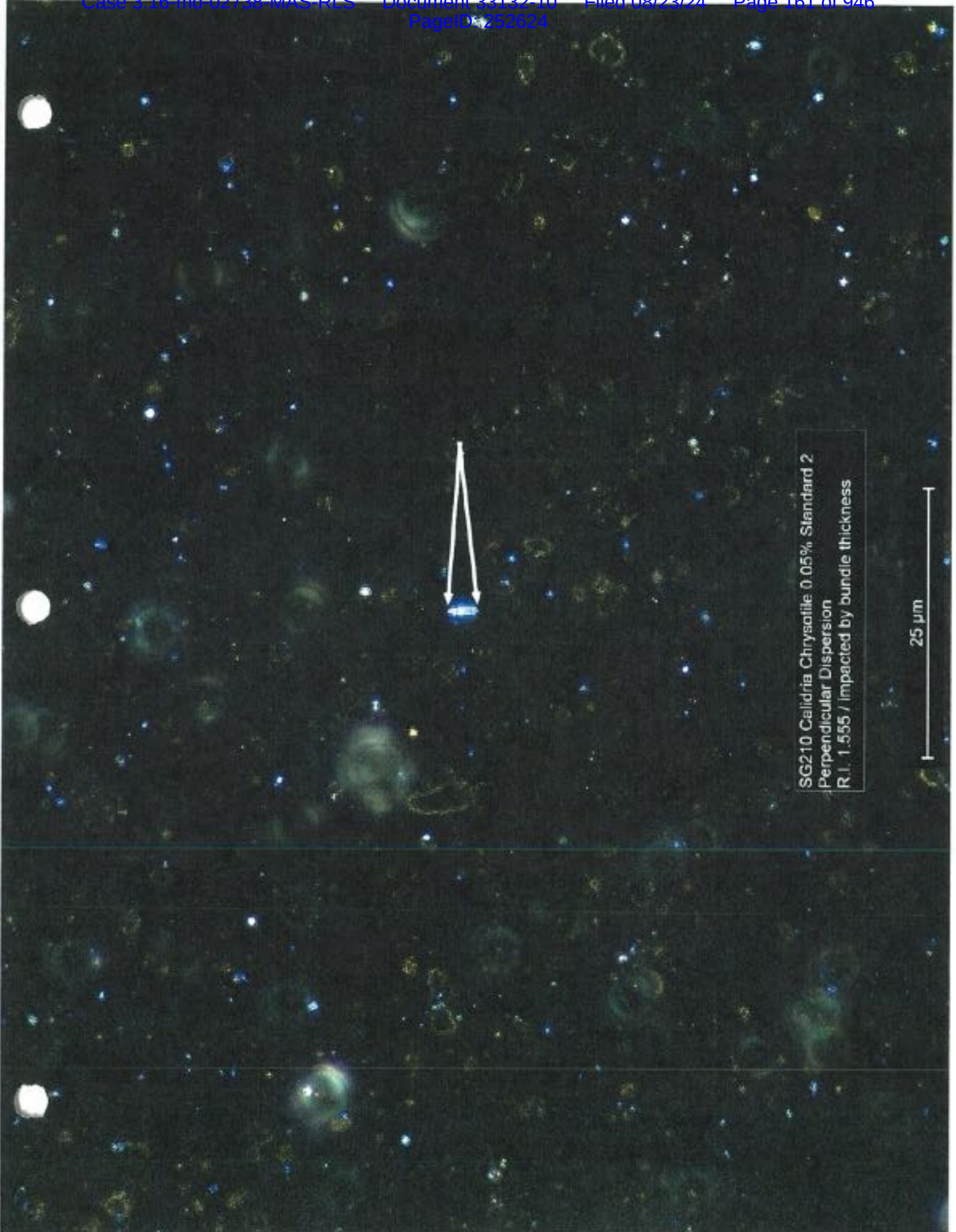
SG210 Calidria Chrysotile 0.05% Standard 2
Crossed Polars @ 630X

2.5 μm



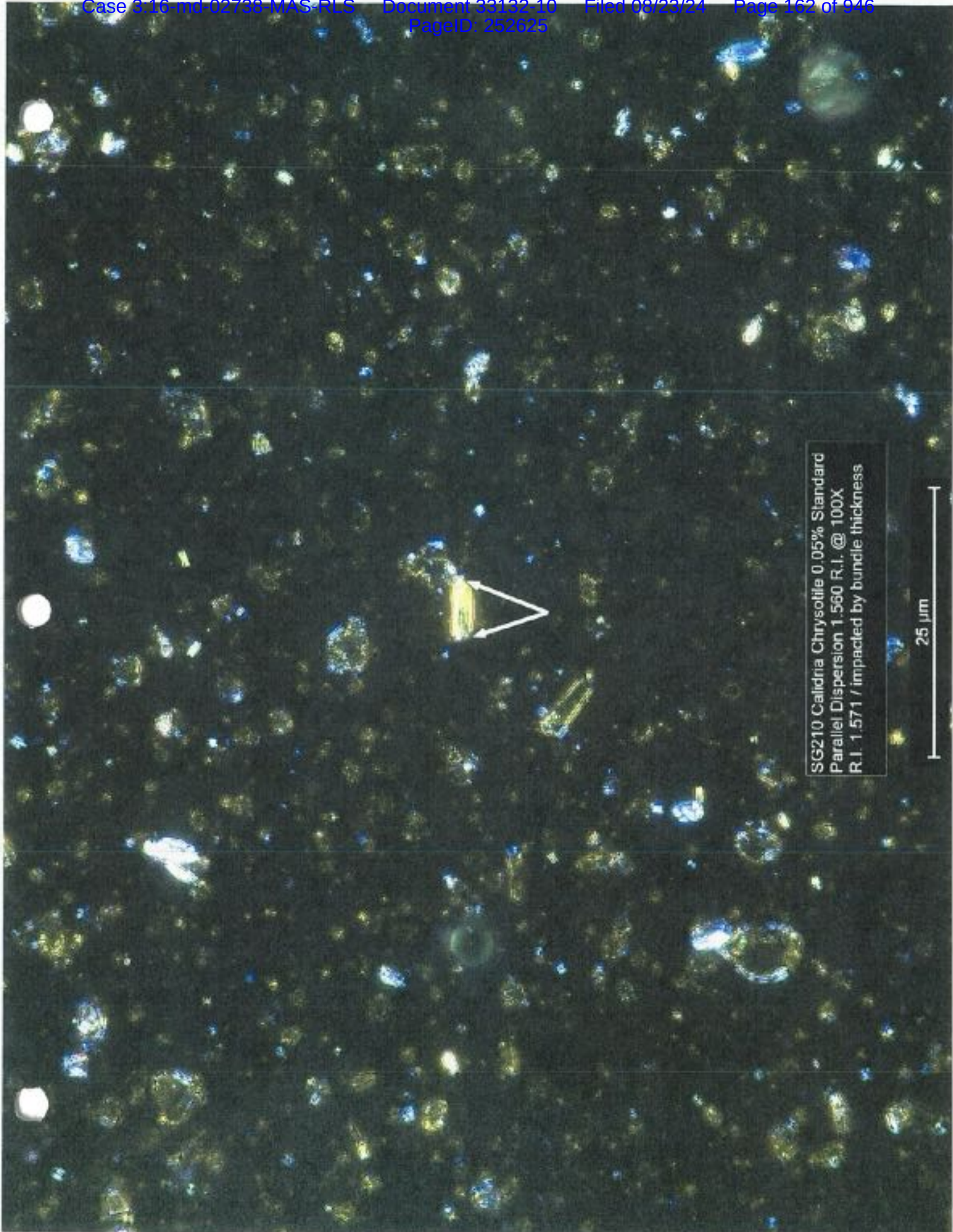
SG210 Calidria Chrysotile 0.05% Standard 2
Polarizer out
Aperture Diaphragm 95% closed
1.560 R.I. @ 630X

2.5 μ m



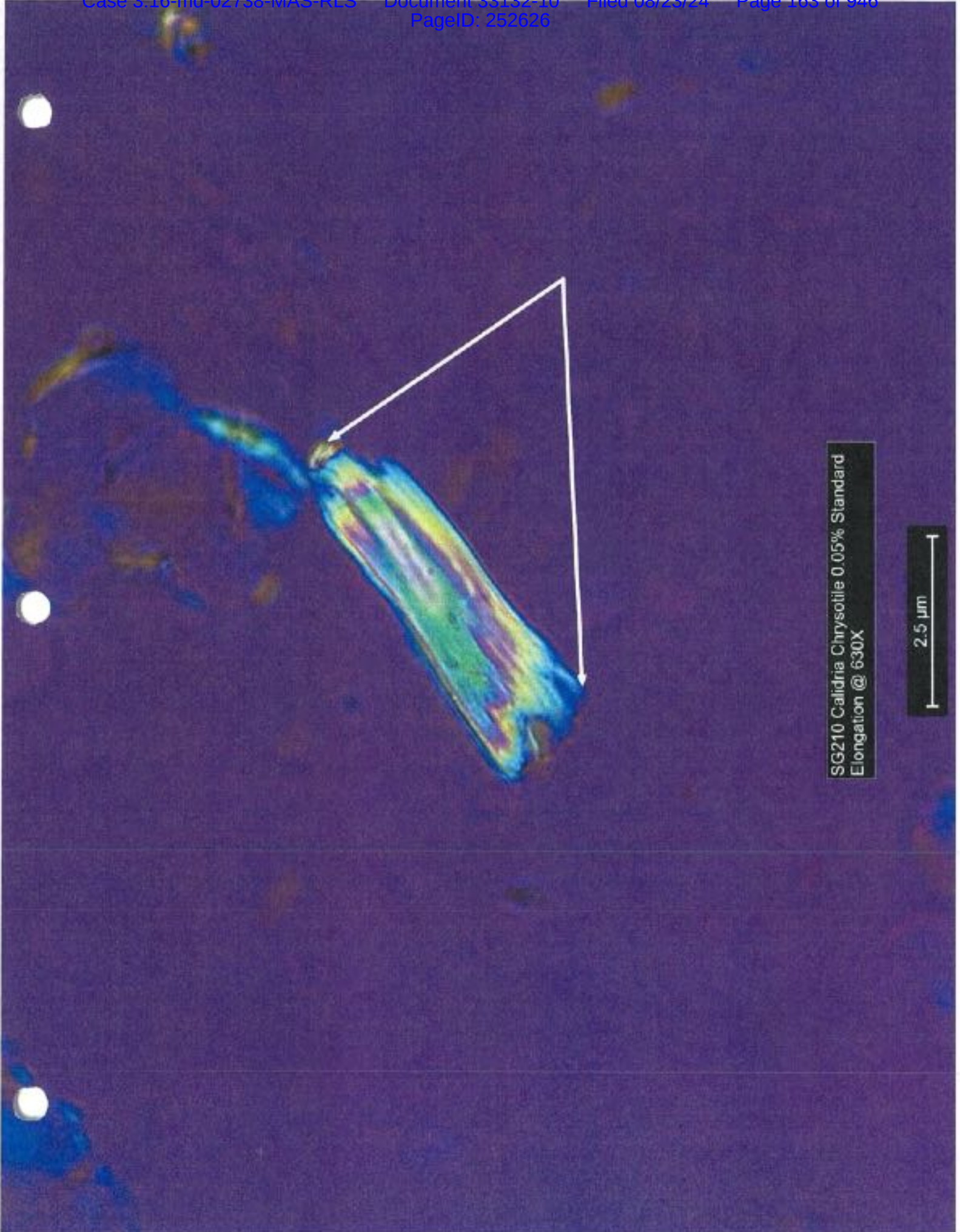
SG210 Calidria Chrysotile 0.05% Standard 2
Perpendicular Dispersion
R.I. 1.555 / Impacted by bundle thickness

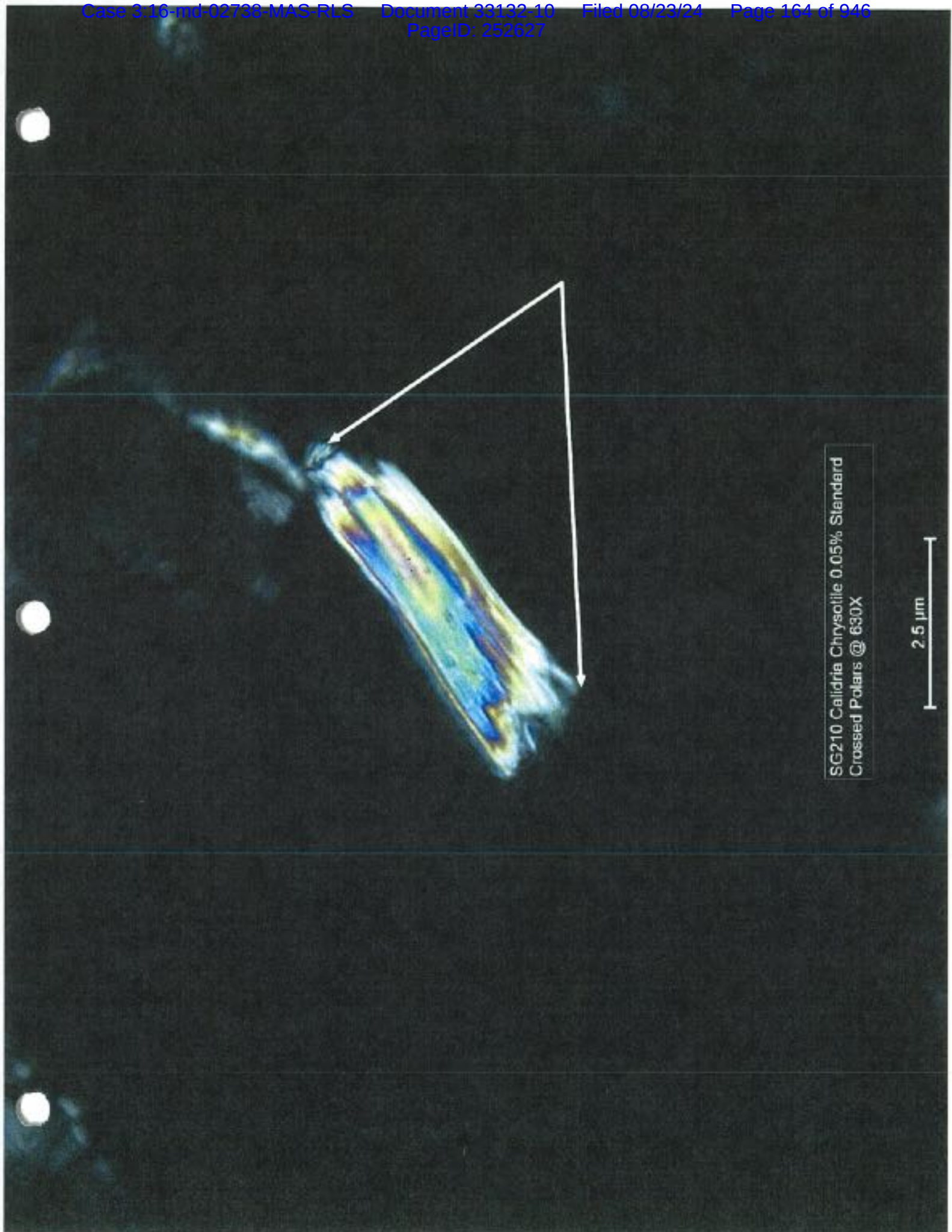
25 μm



SG210 Calidria Chrysotile 0.05% Standard
Parallel Dispersion 1.560 R.I. @ 100X
R.I. 1.571 / impacted by bundle thickness

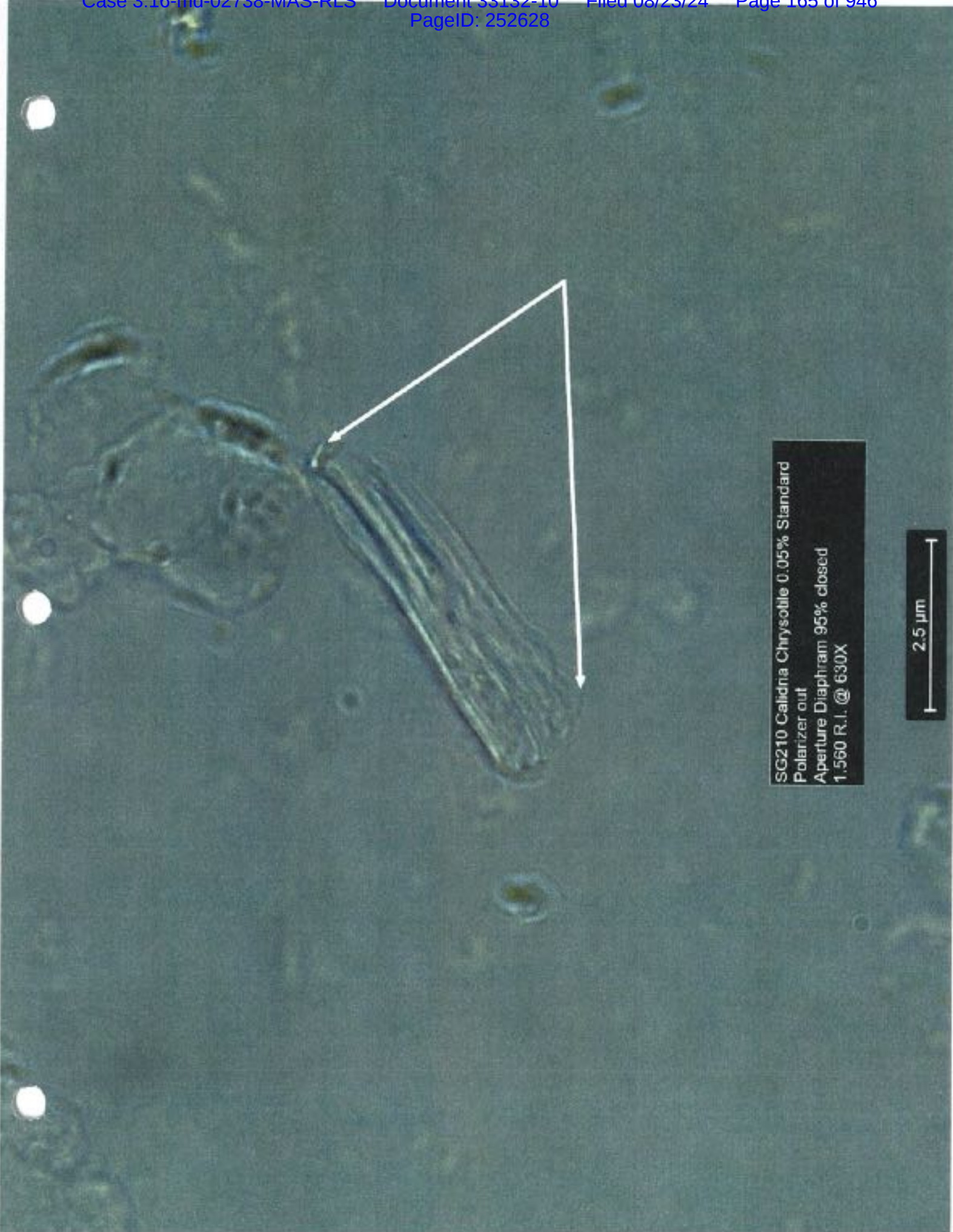
25 μm

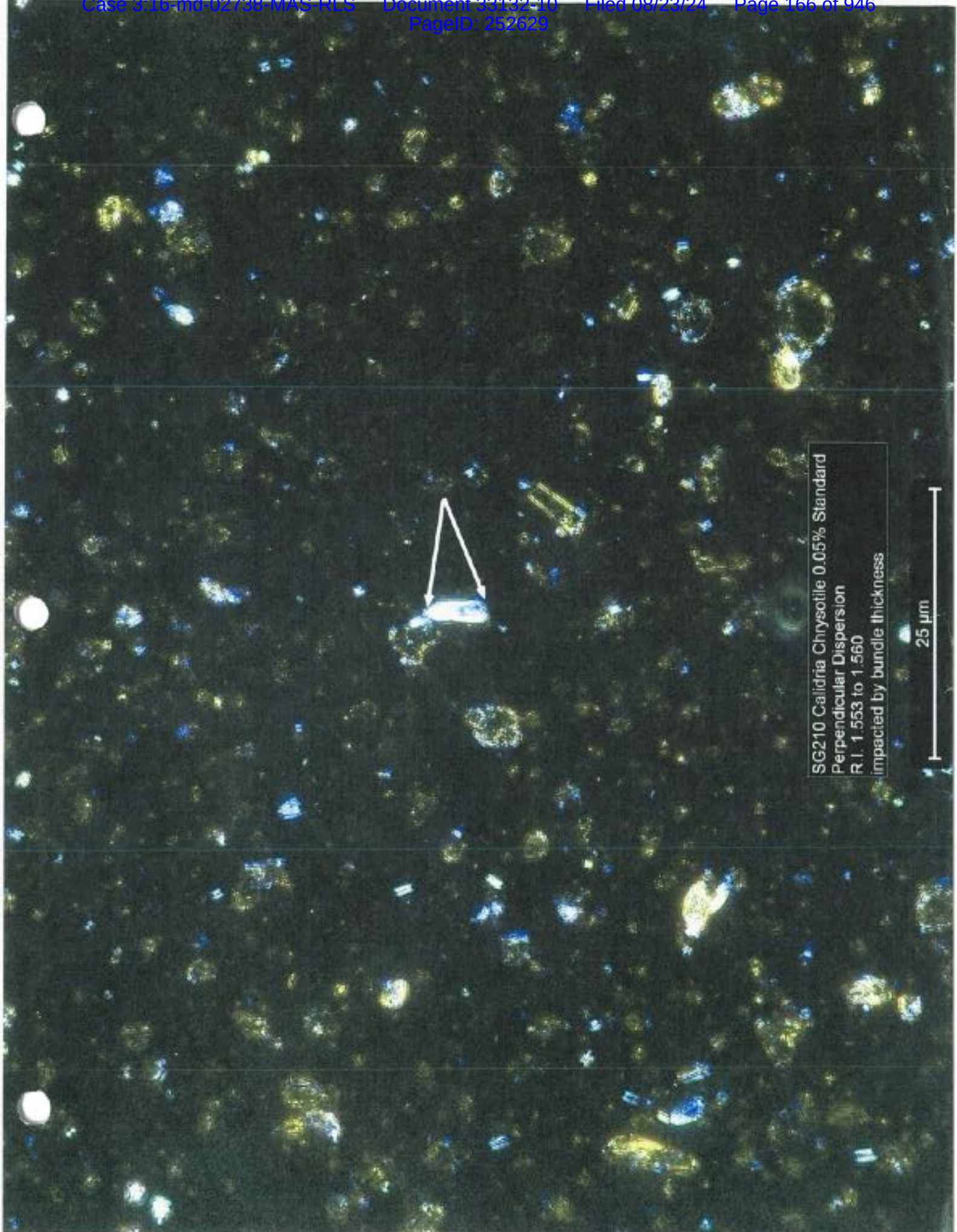




SG210 Calidria Chrysotile 0.05% Standard
Crossed Polars @ 630X

2.5 μ m

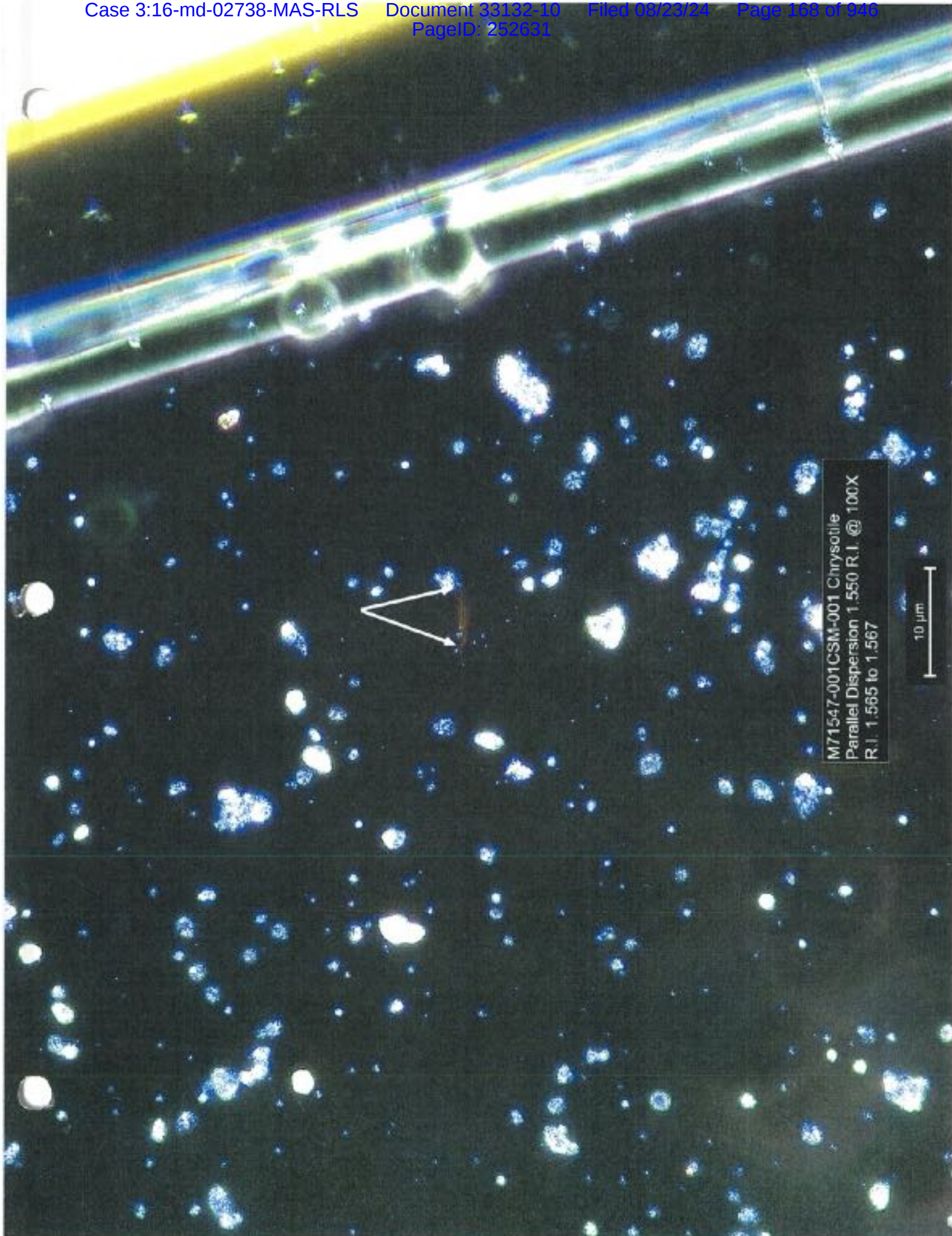




SG210 Calidria Chrysotile 0.05% Standard
Perpendicular Dispersion
R.I. 1.553 to 1.560
impacted by bundle thickness

25 μm

Section 5





M71547-001CSM-001 Chrysotile
Perpendicular Dispersion
R.I. 1.554

10 μm



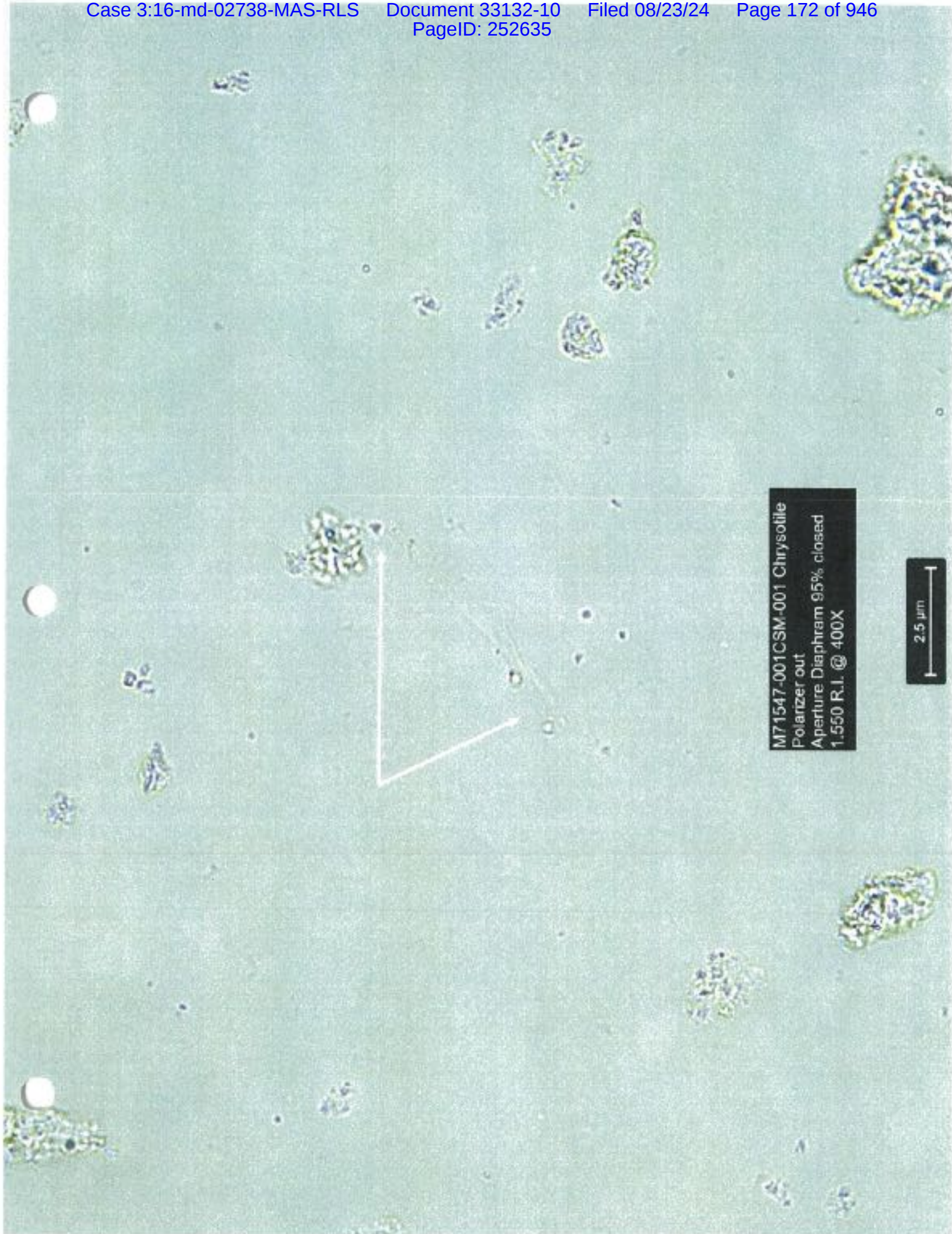
M71547-001CSM-001 Chrysotile
Elongation @ 400X

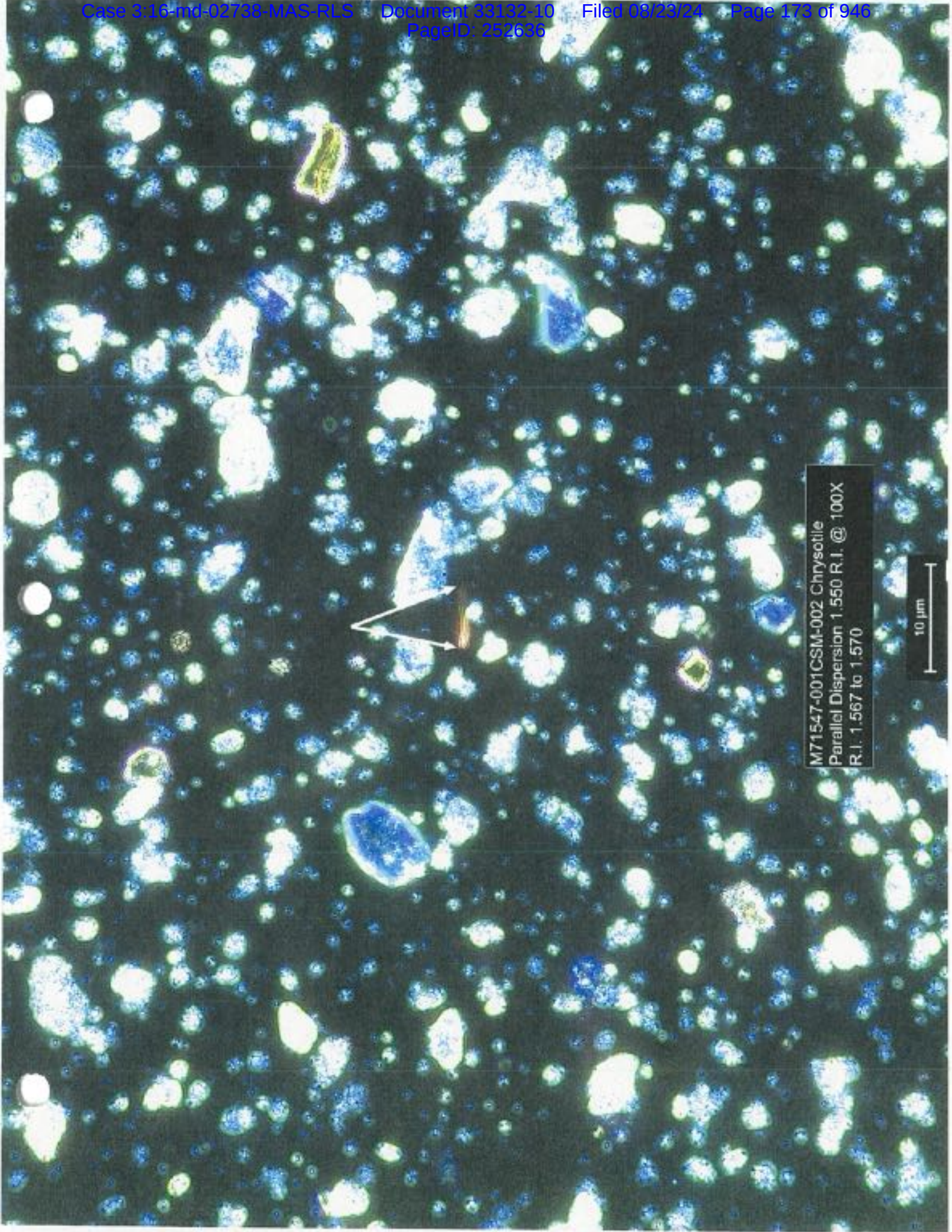
2.5 μm



M71547-001CSM-001 Chrysotile
Crossed Polars

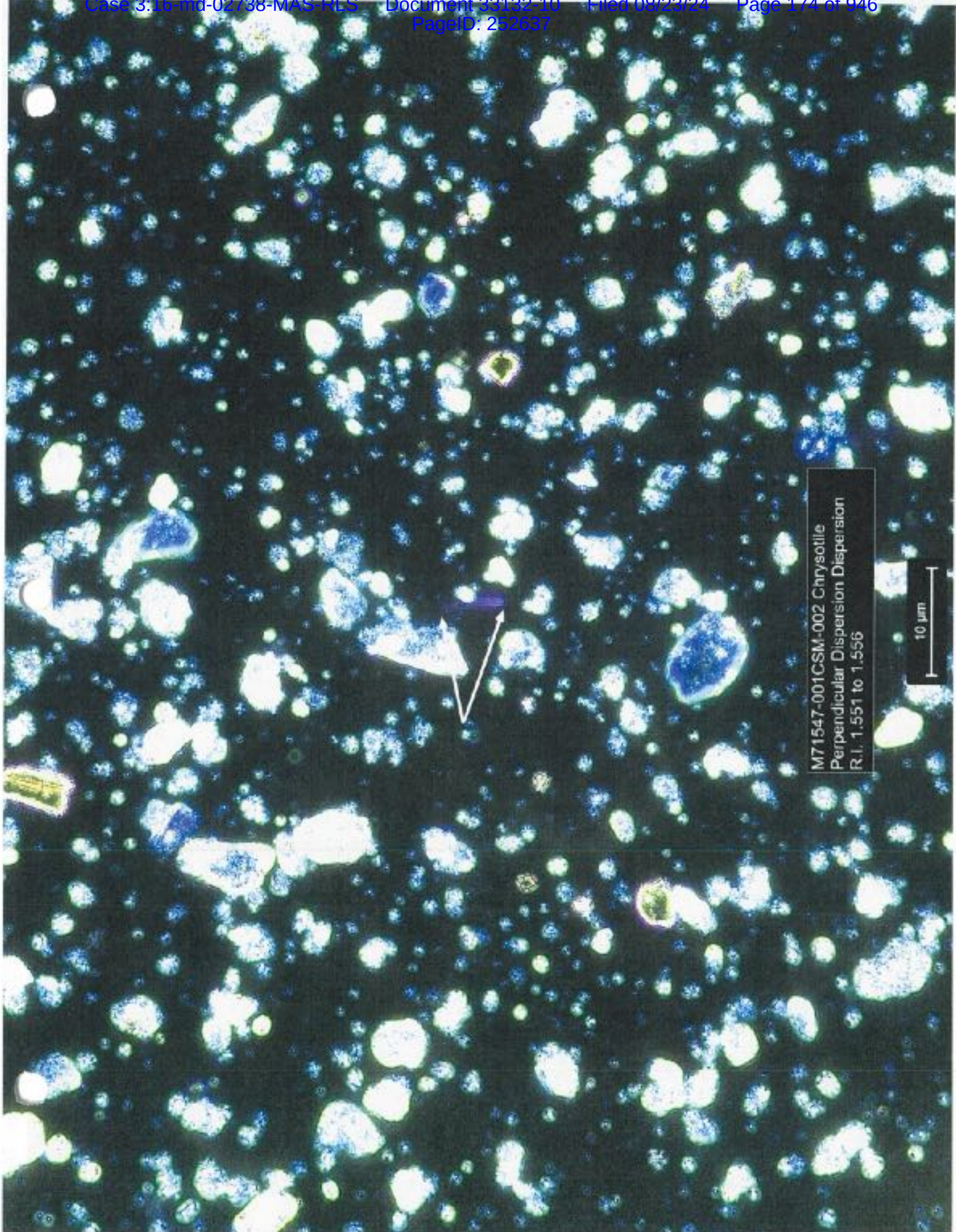
2.5 μm





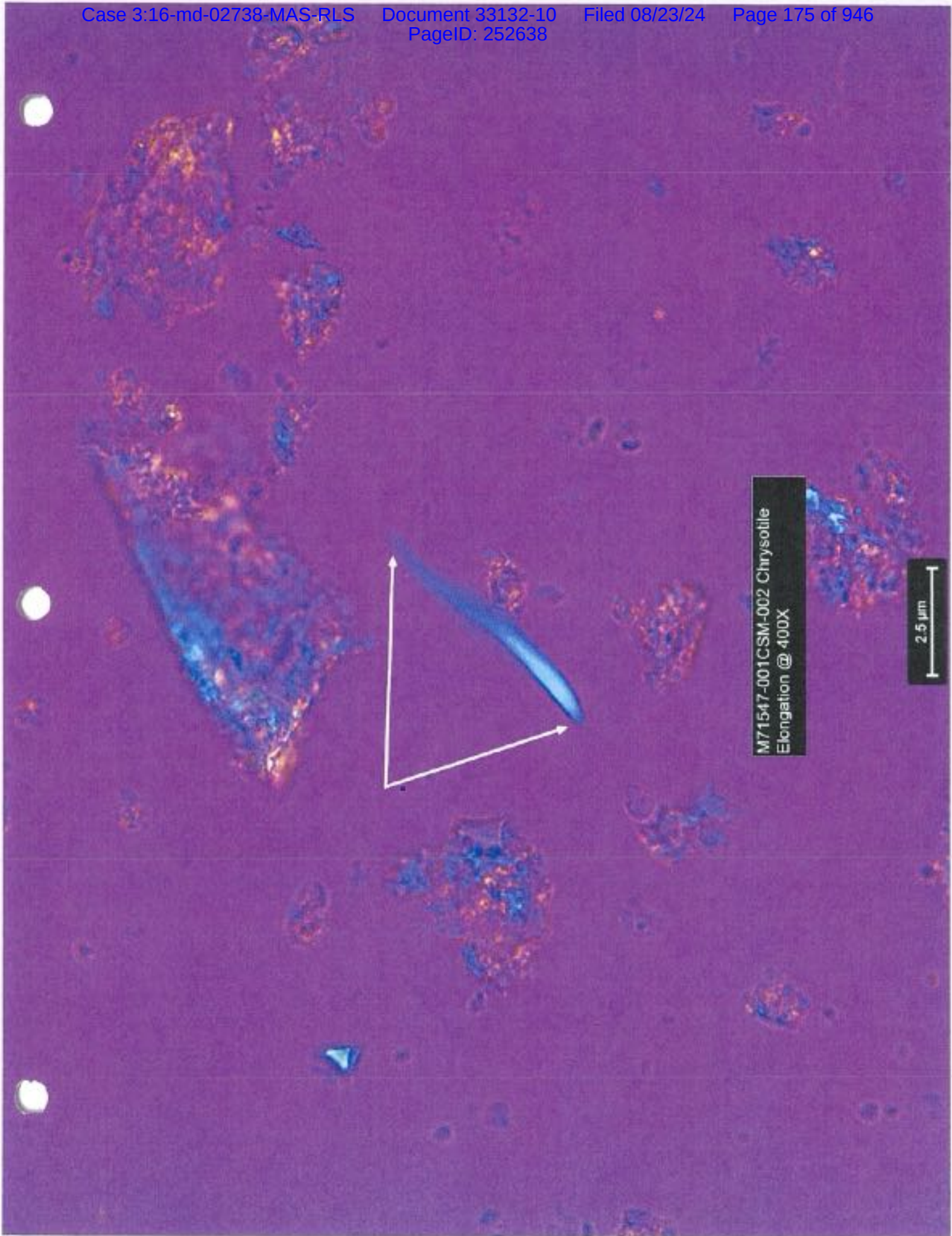
M71547-001CSM-002 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.567 to 1.570

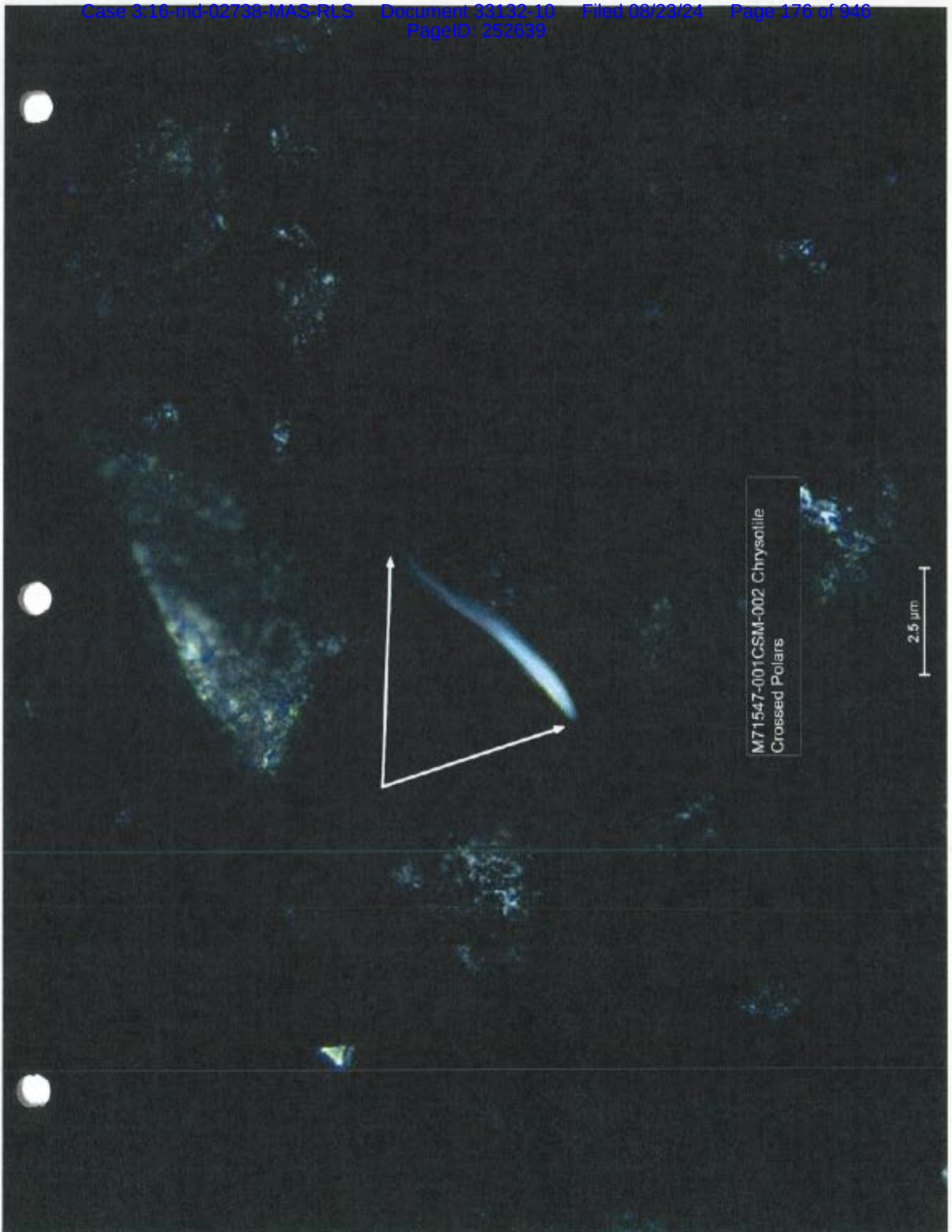
10 μ m



M71547-001CSM-002 Chrysotile
Perpendicular Dispersion Dispersion
R.I. 1.551 to 1.556

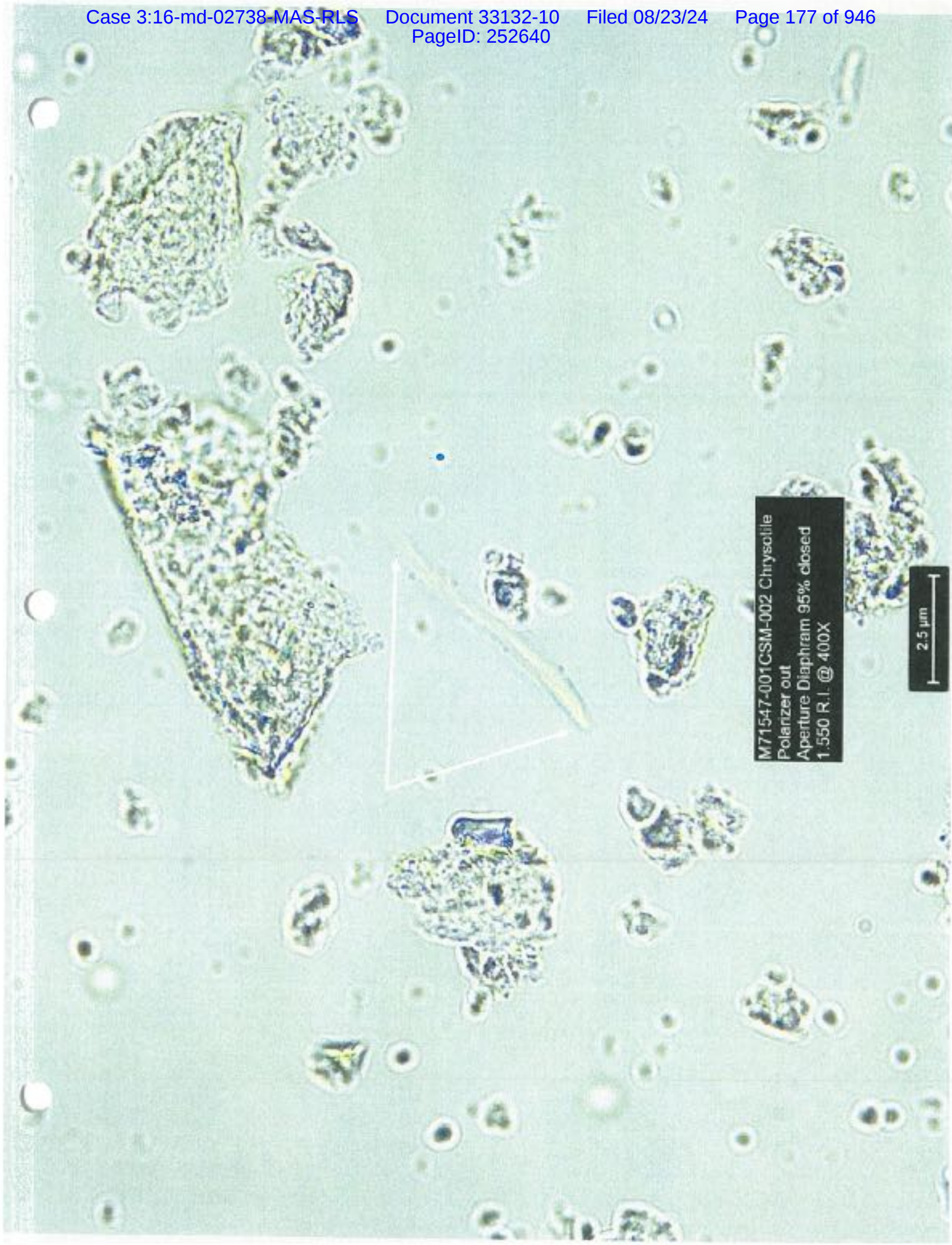
10 µm





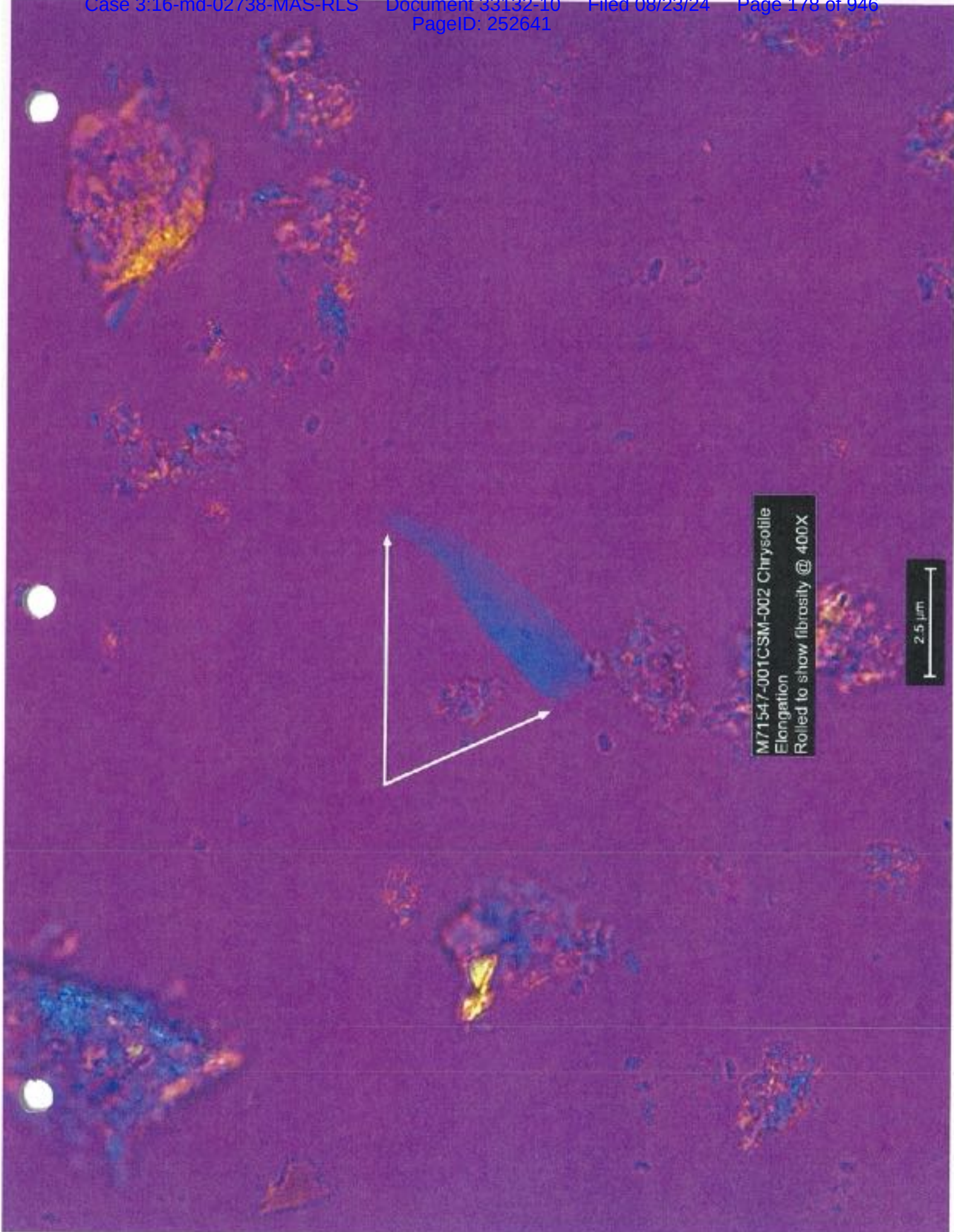
M71547-001CSM-002 Chrysotile
Crossed Polars

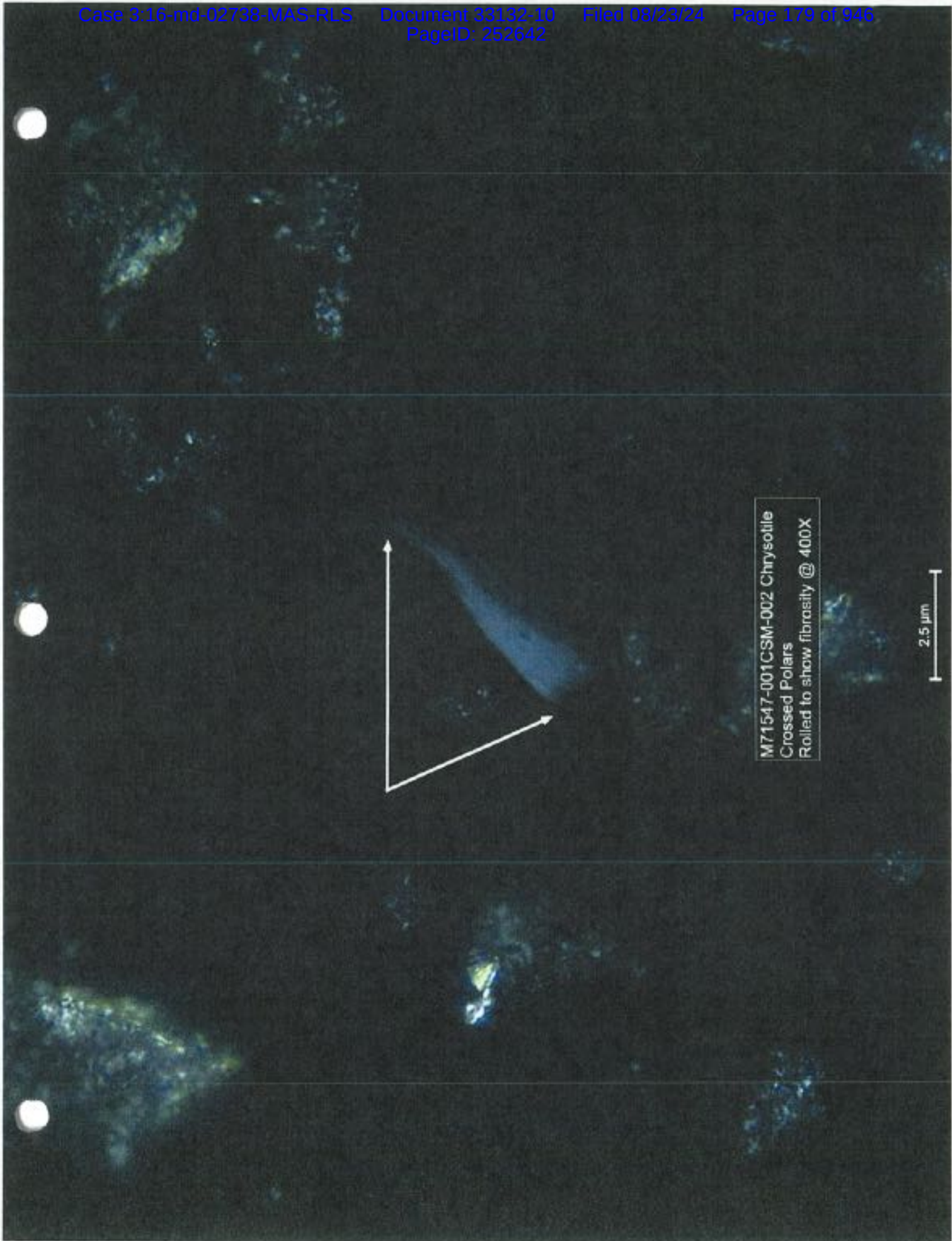
2.5 μm



M71547-001CSM-002 Chrysolite
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

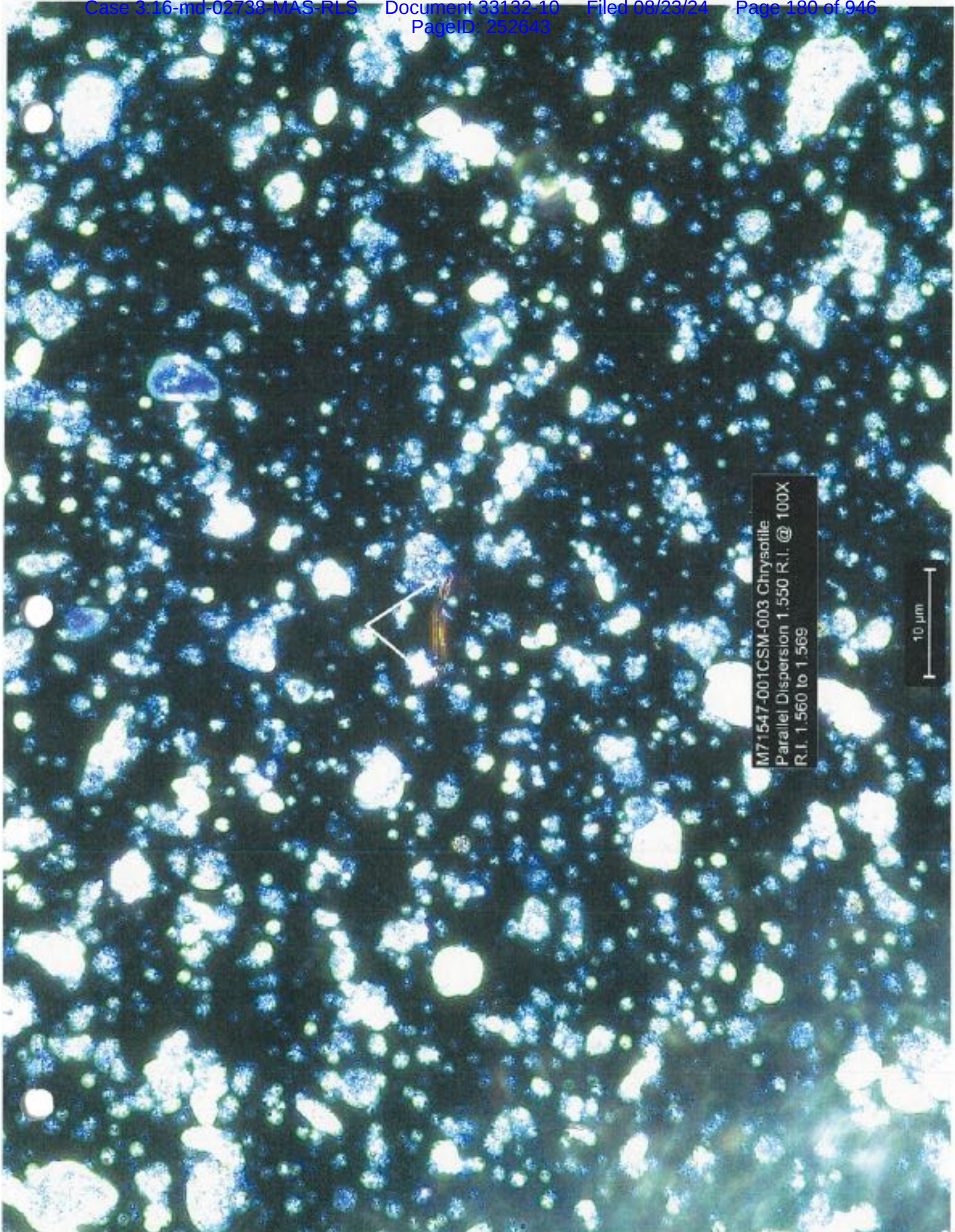
2.5 μ m





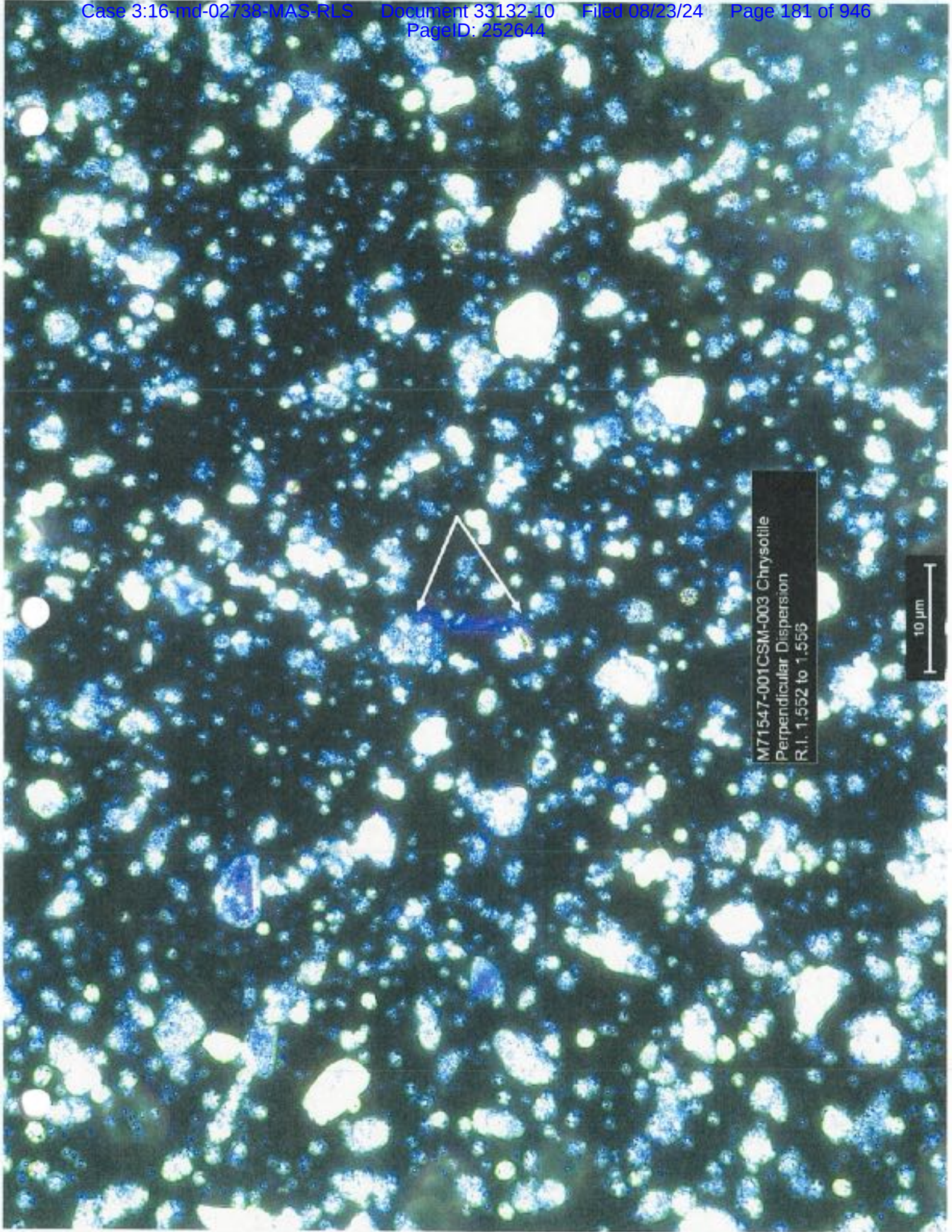
M71547-001CSM-002 Chrysotile
Crossed Polars
Rolled to show fibrosity @ 400X

2.5 μm



M71547-001CSM-003 Chrysothrix
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.560 to 1.569

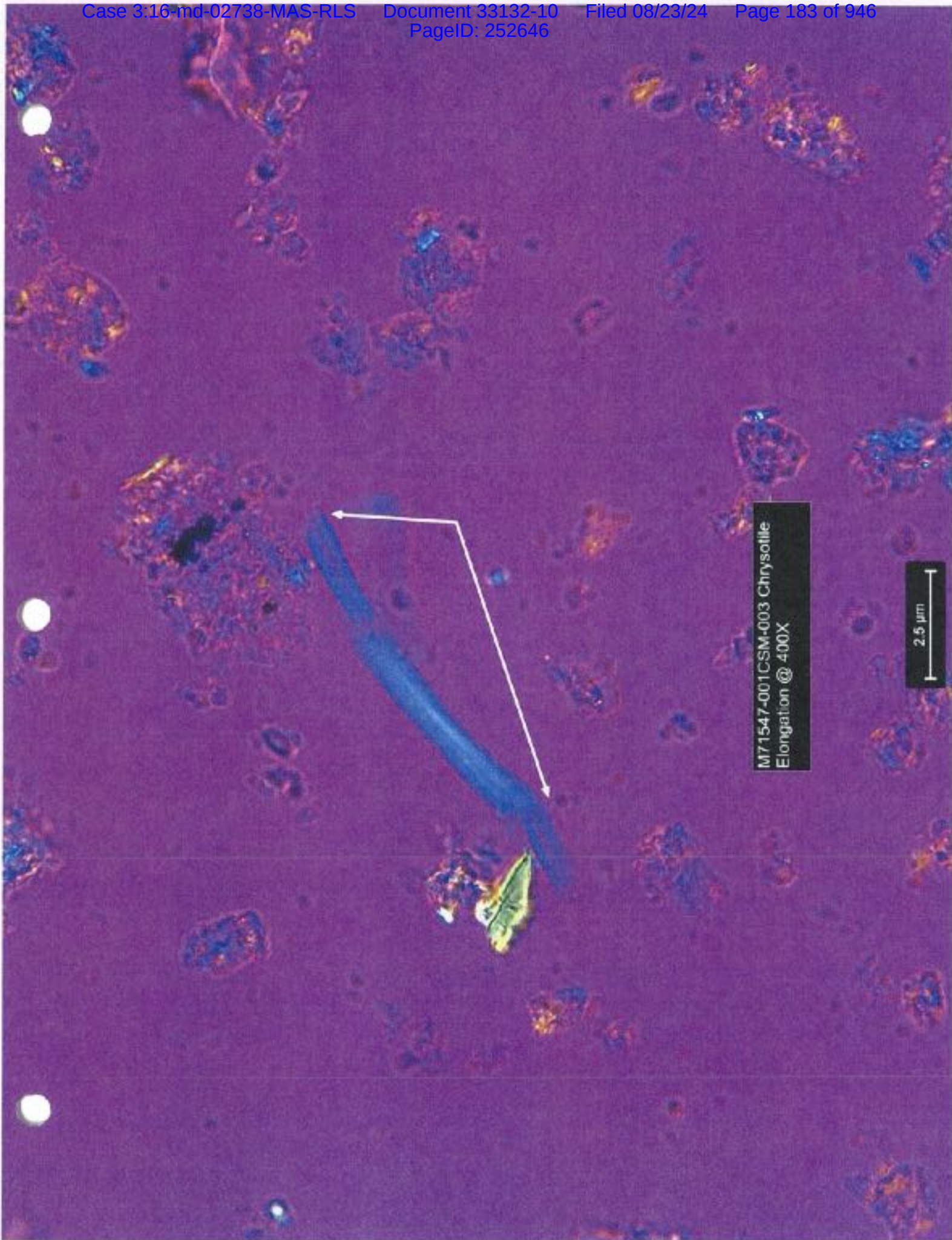
10 μm

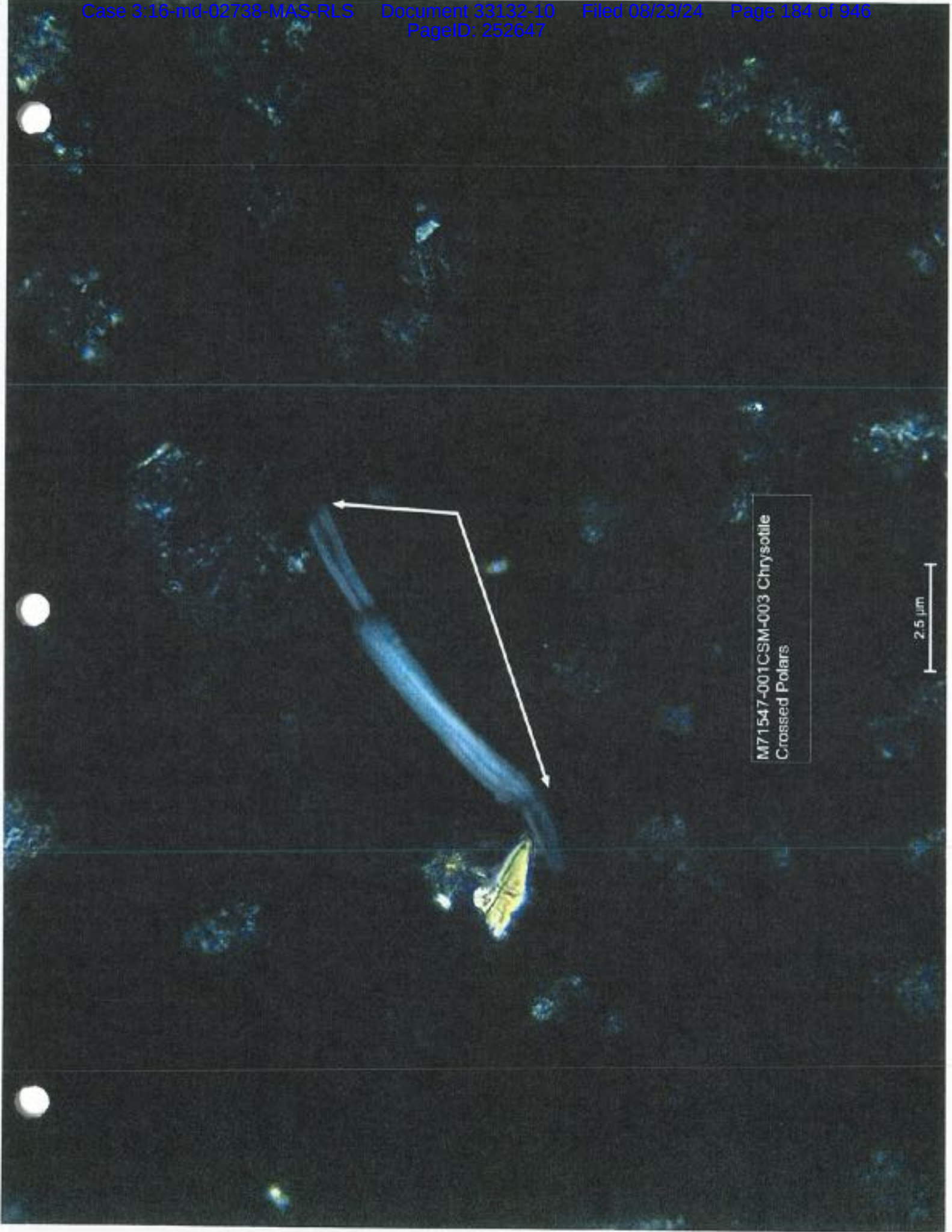


M71547-001CSM-003 Chrysotile
Perpendicular Dispersion
R.I. 1.552 to 1.558

10 μ m

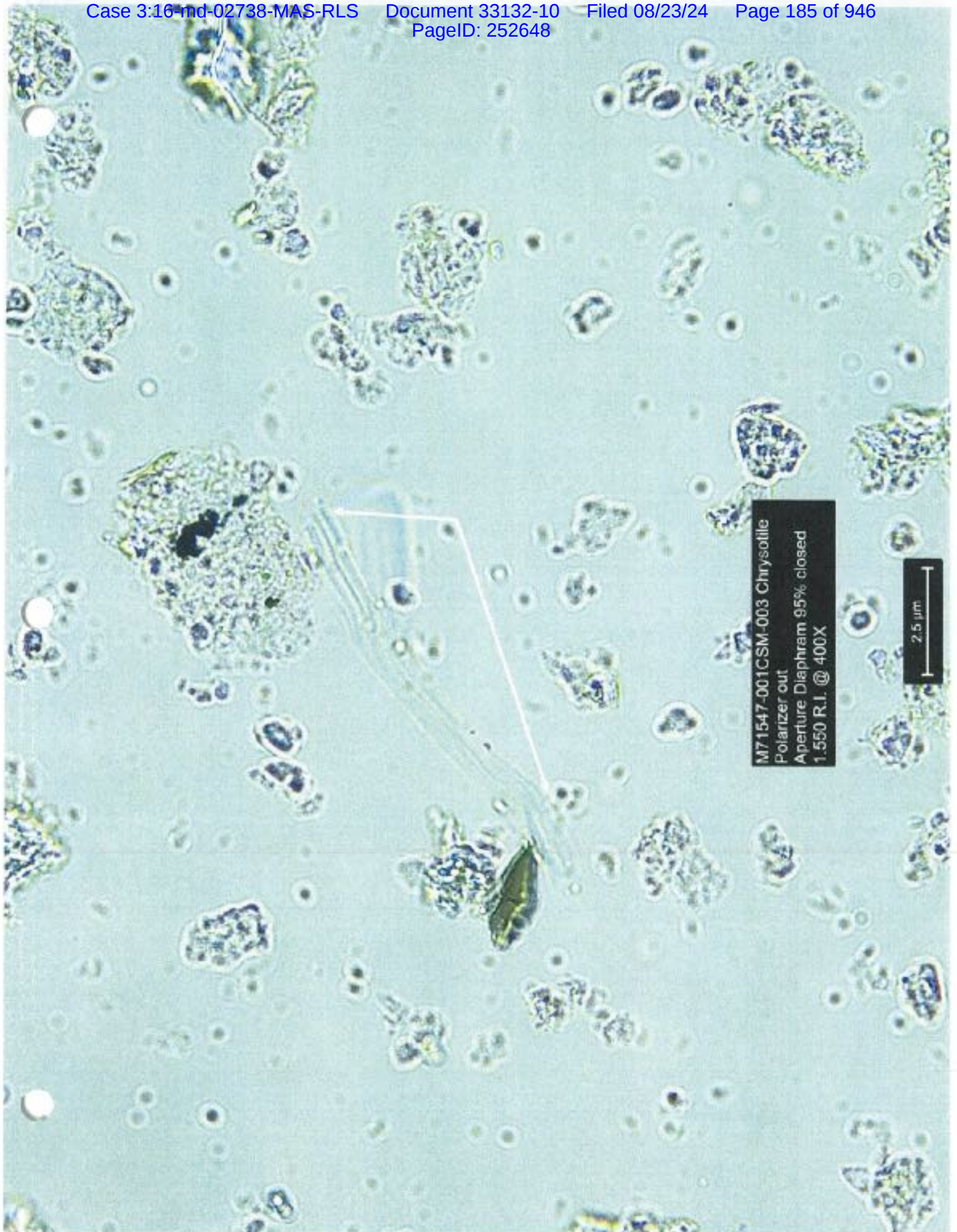
Exhibit 77b





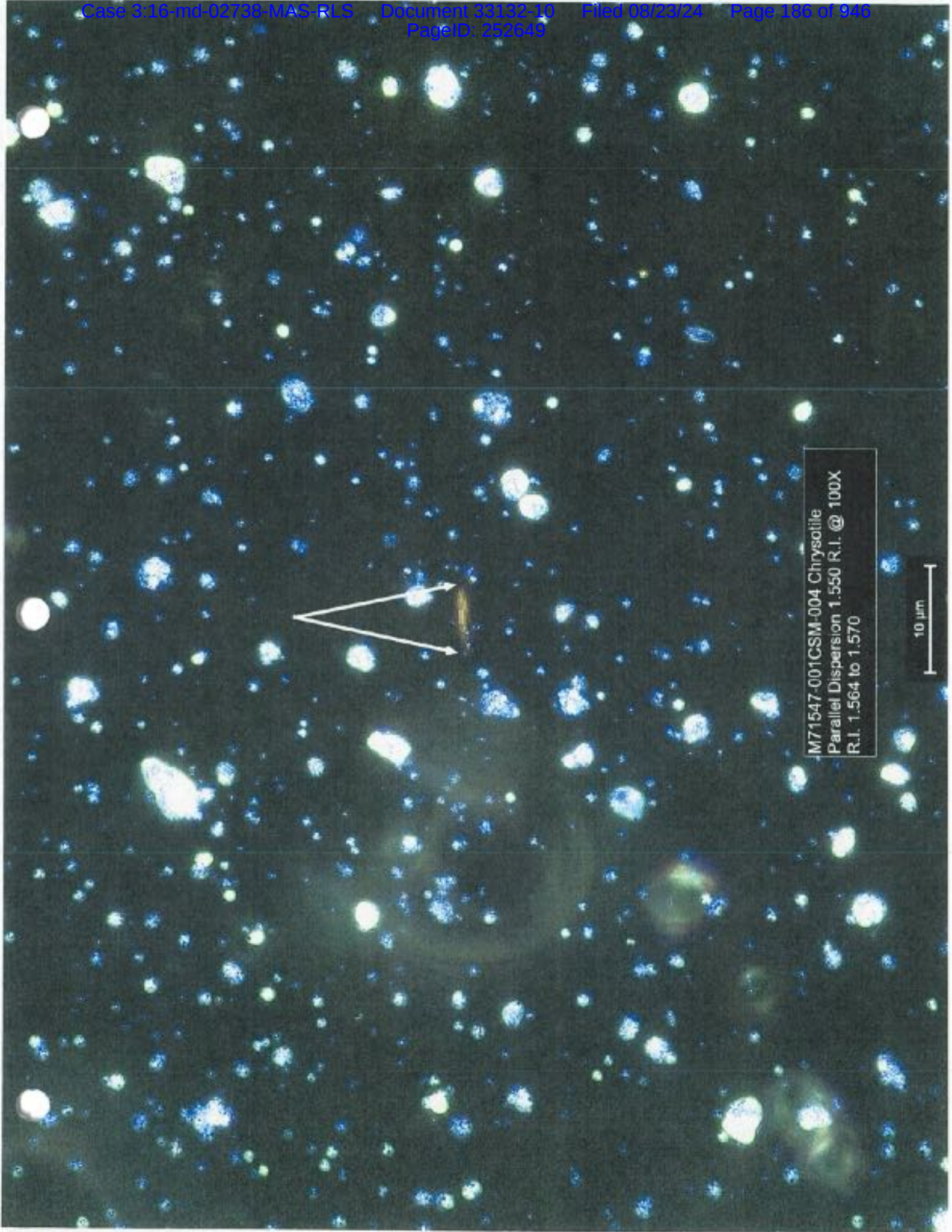
M71547-001CSM-003 Chrysotile
Crossed Polars

2.5 μm



M71547-001CSM-003 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 µm



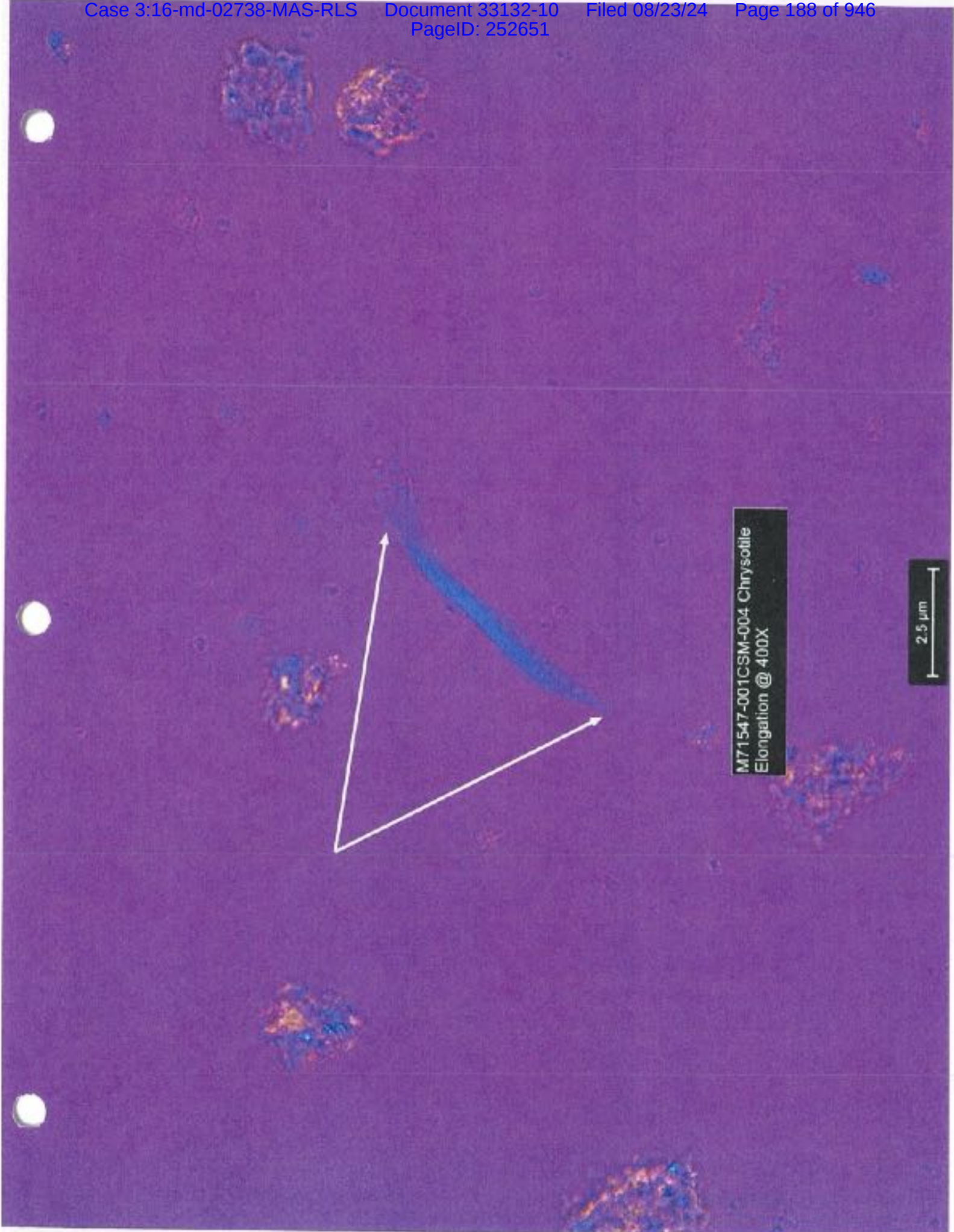
M71547-001CSM-004 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.564 to 1.570

10 μ m



M71547-001CSM-004 Chrysotile
Perpendicular Dispersion
R.I. 1.552 to 1.556

10 μ m



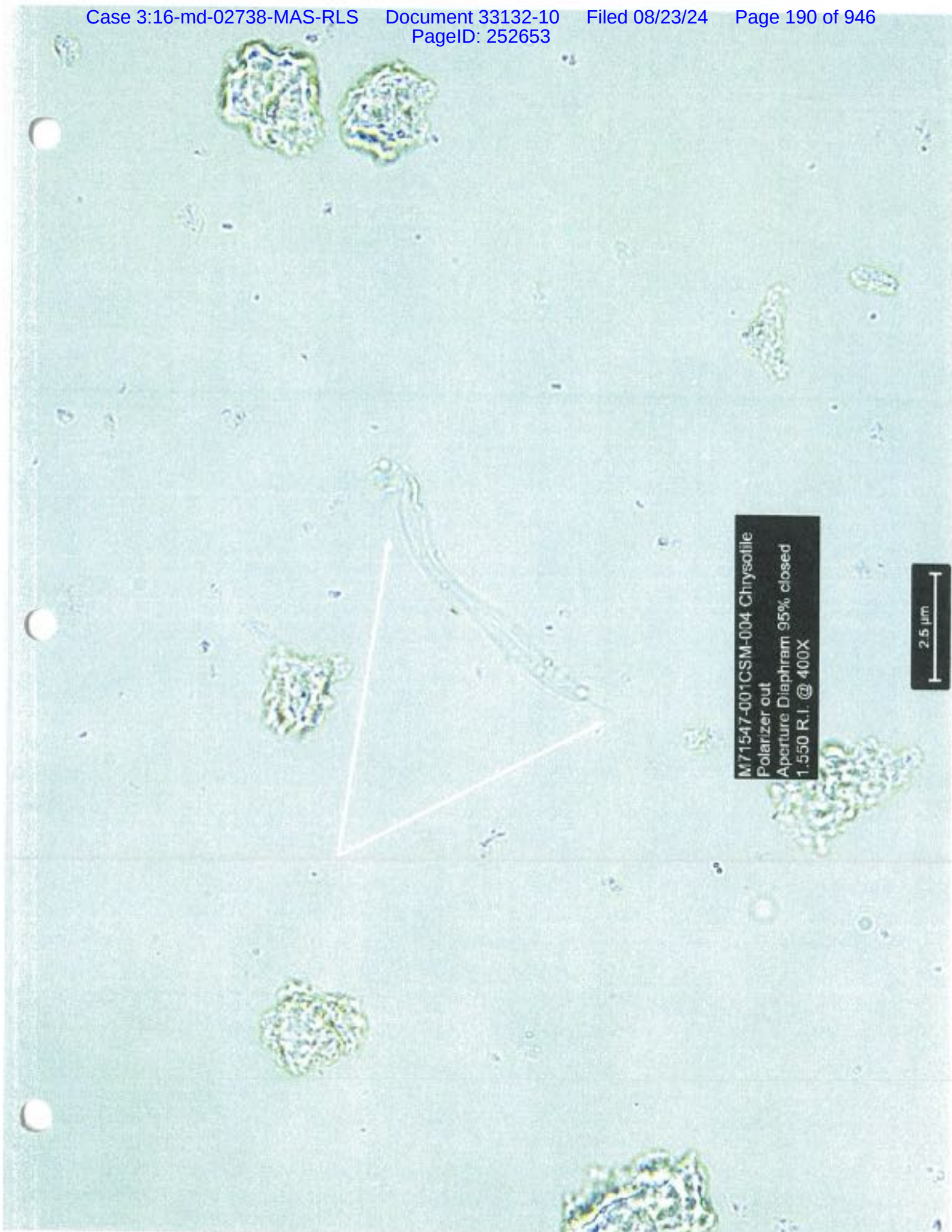
M71547-001CSM-004 Chrysotile
Elongation @ 400X

2.5 μm



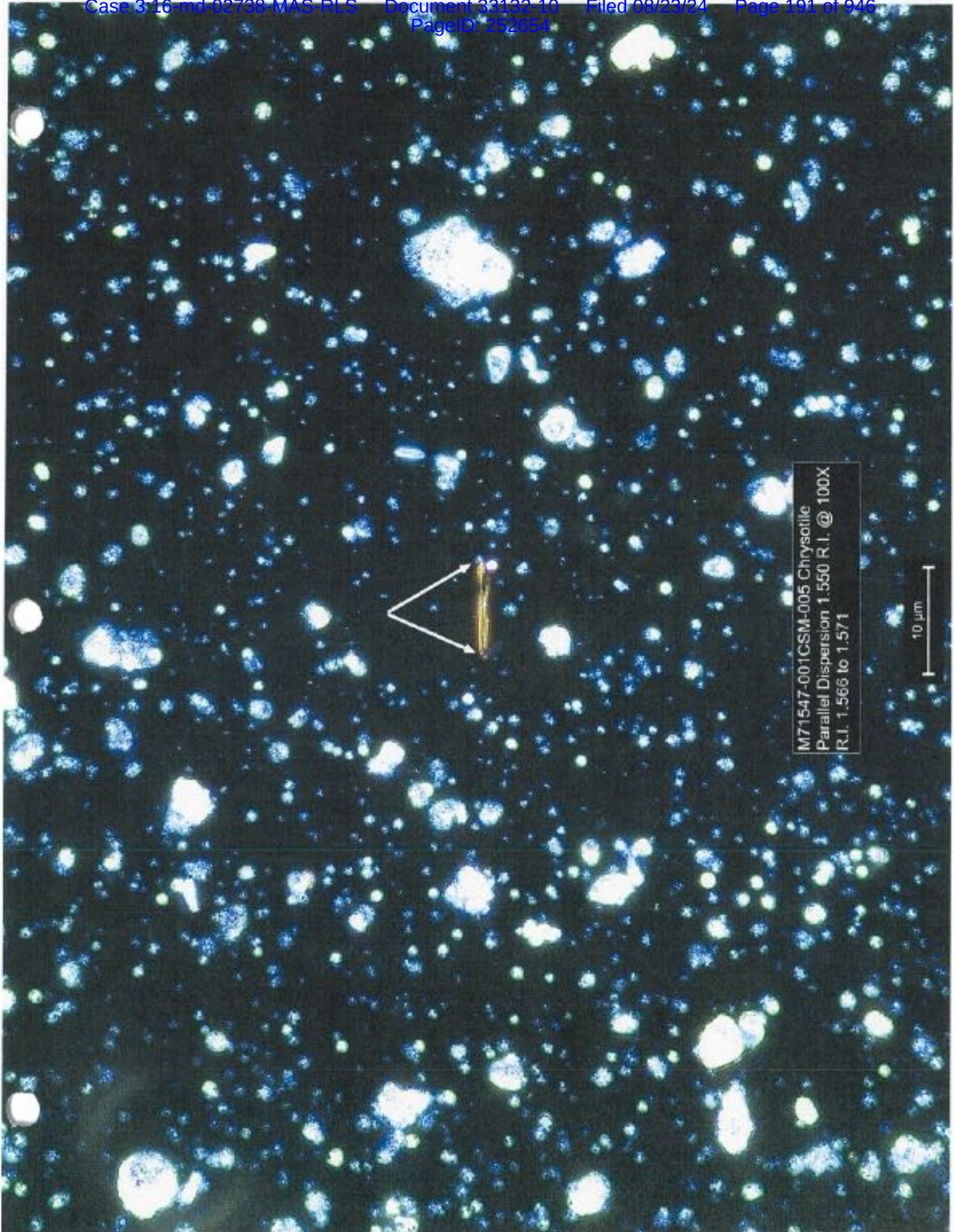
M71547-001CSM-004 Chrysolite
Crossed Polars

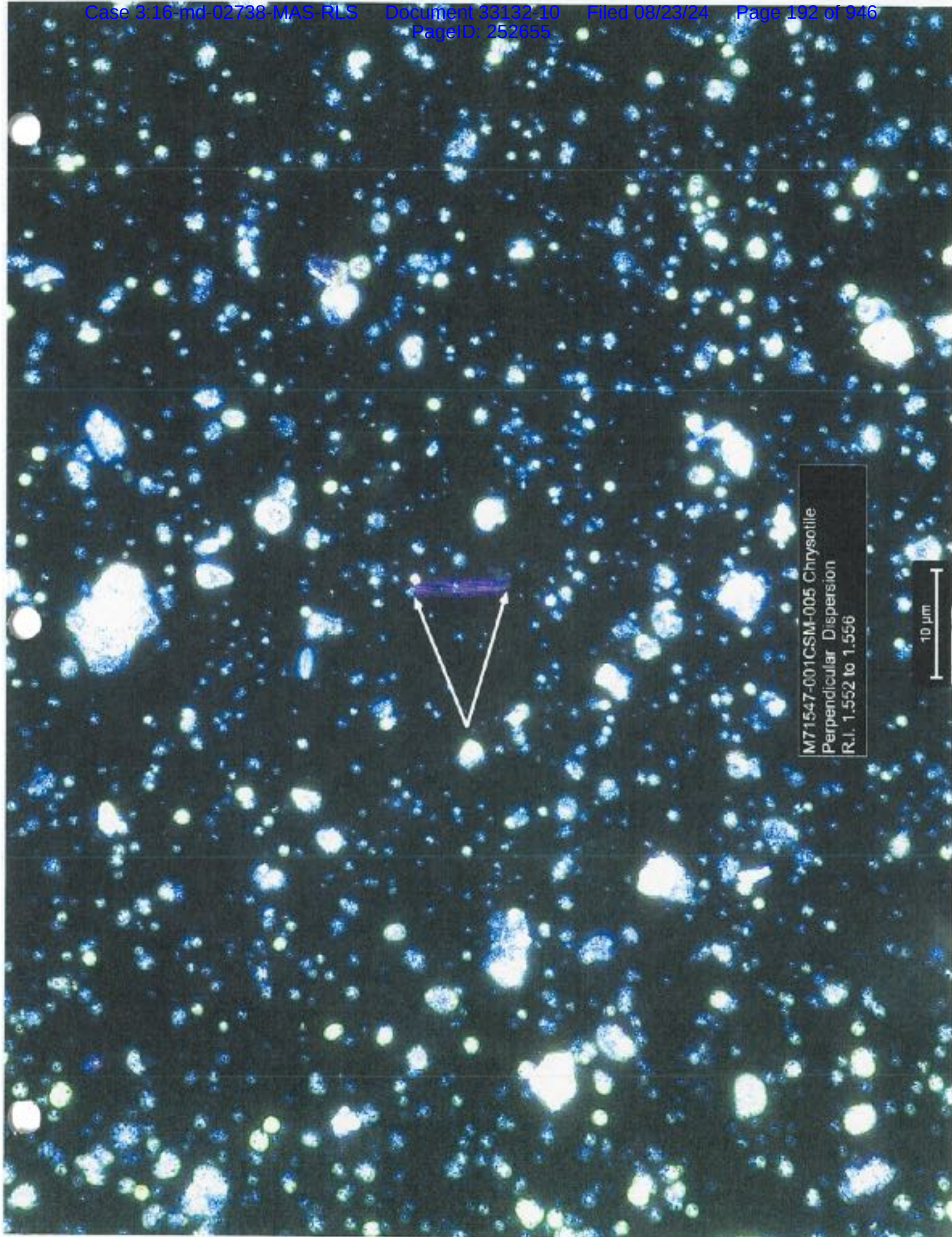
2.5 μm

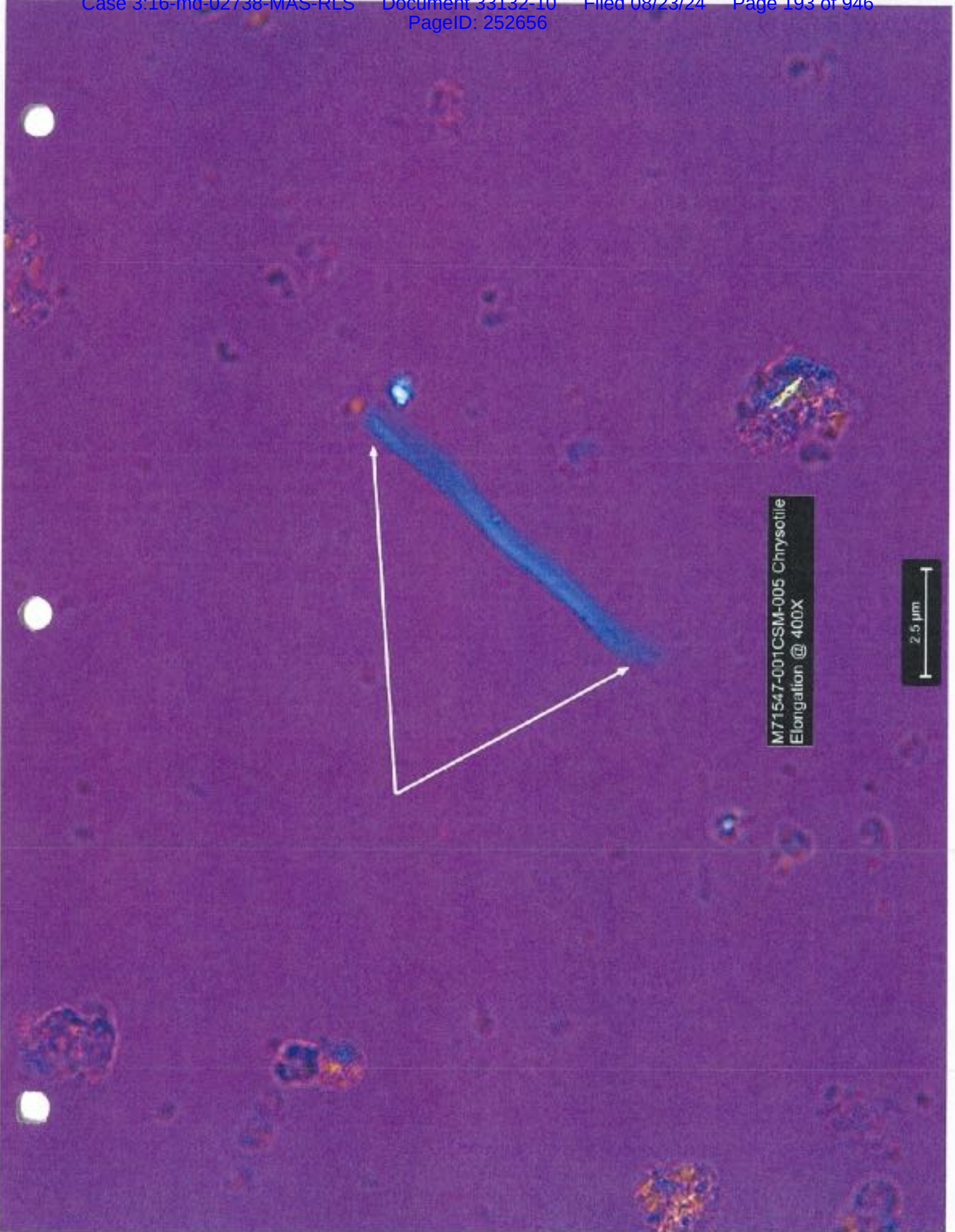


M71547-001CSM-004 Chrysosile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 μm

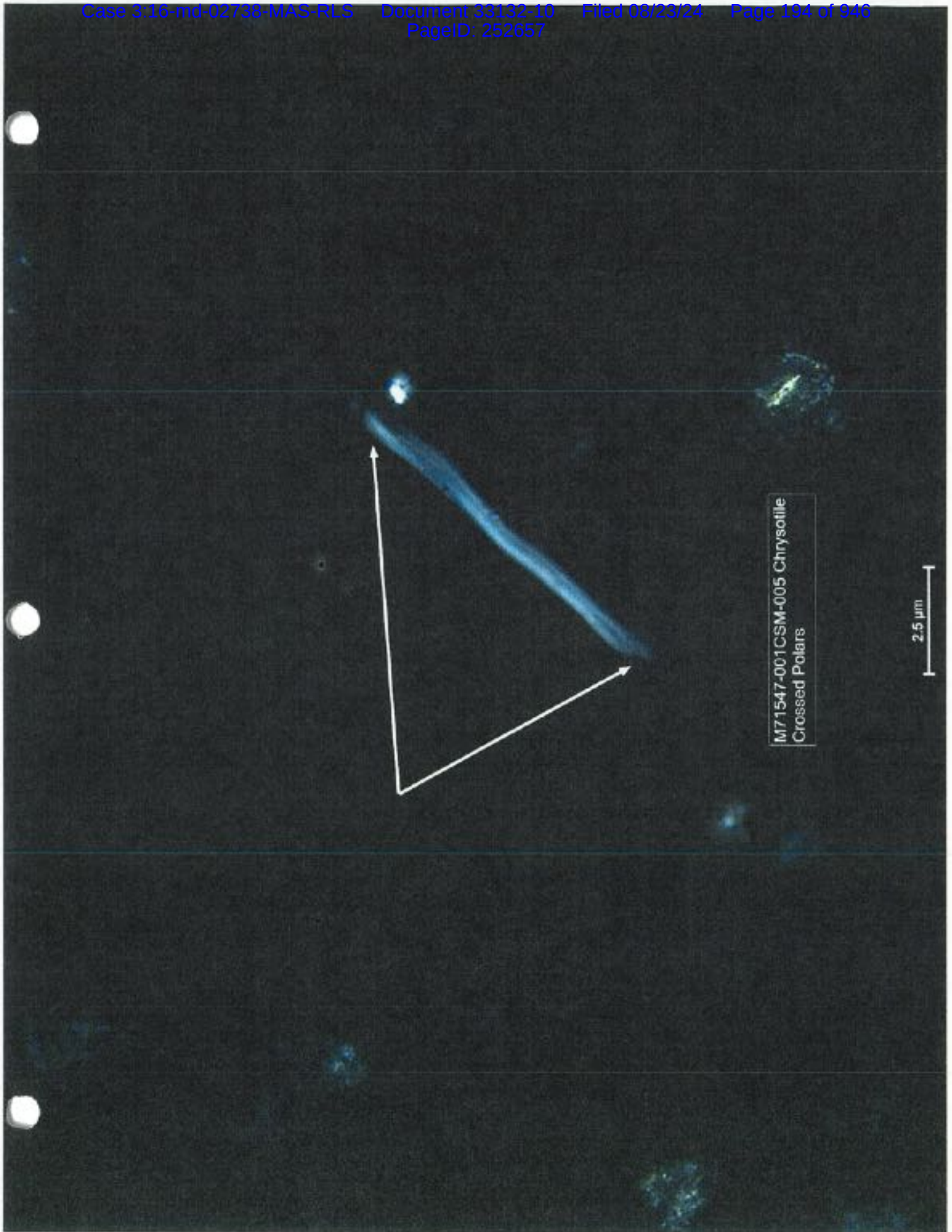






M71547-001CSM-005 Chrysotile
Elongation @ 400X

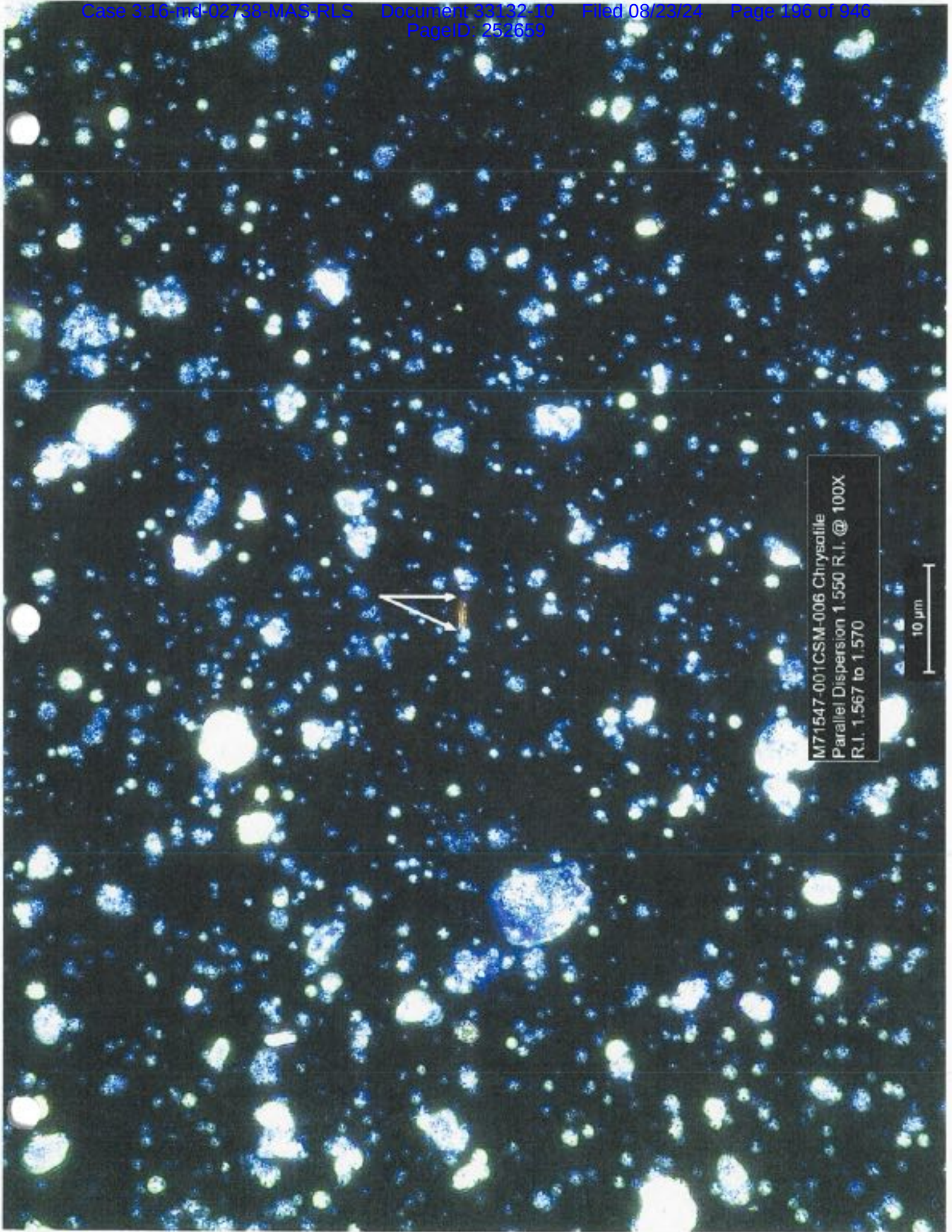
2.5 μm



M71547-001CSM-005 Chrysotile
Crossed Polars

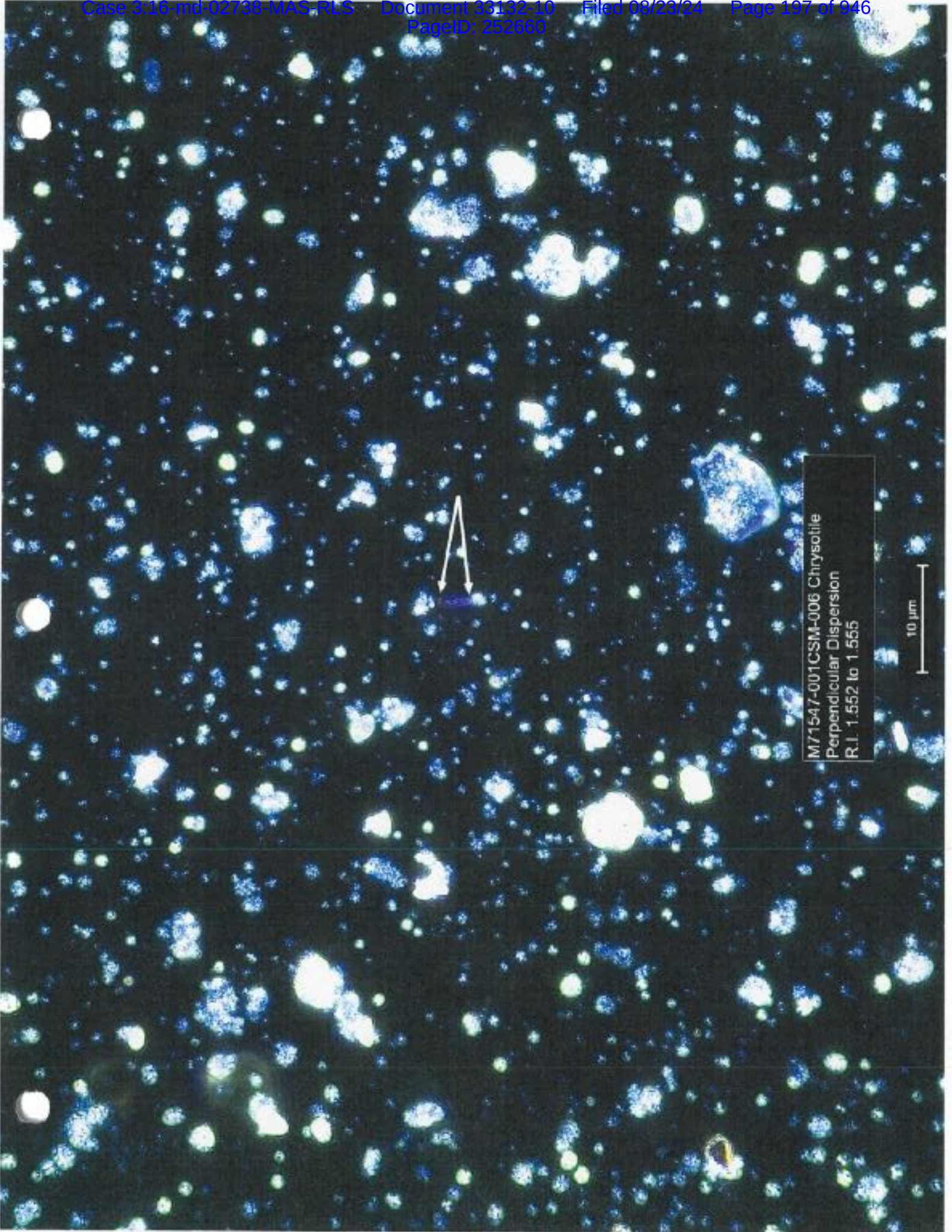
2.5 μm



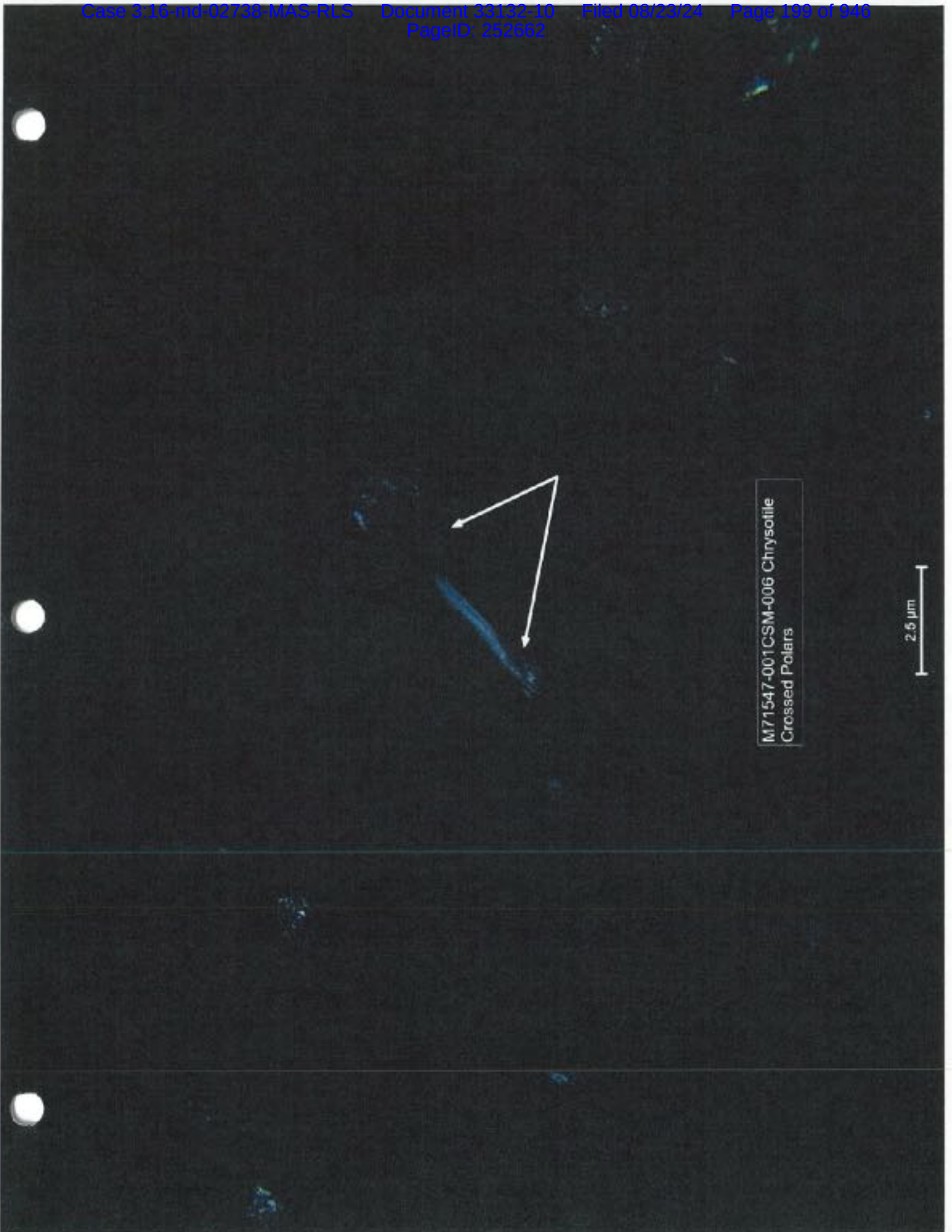


M71547-001CSM-006 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.567 to 1.570

10 μ m

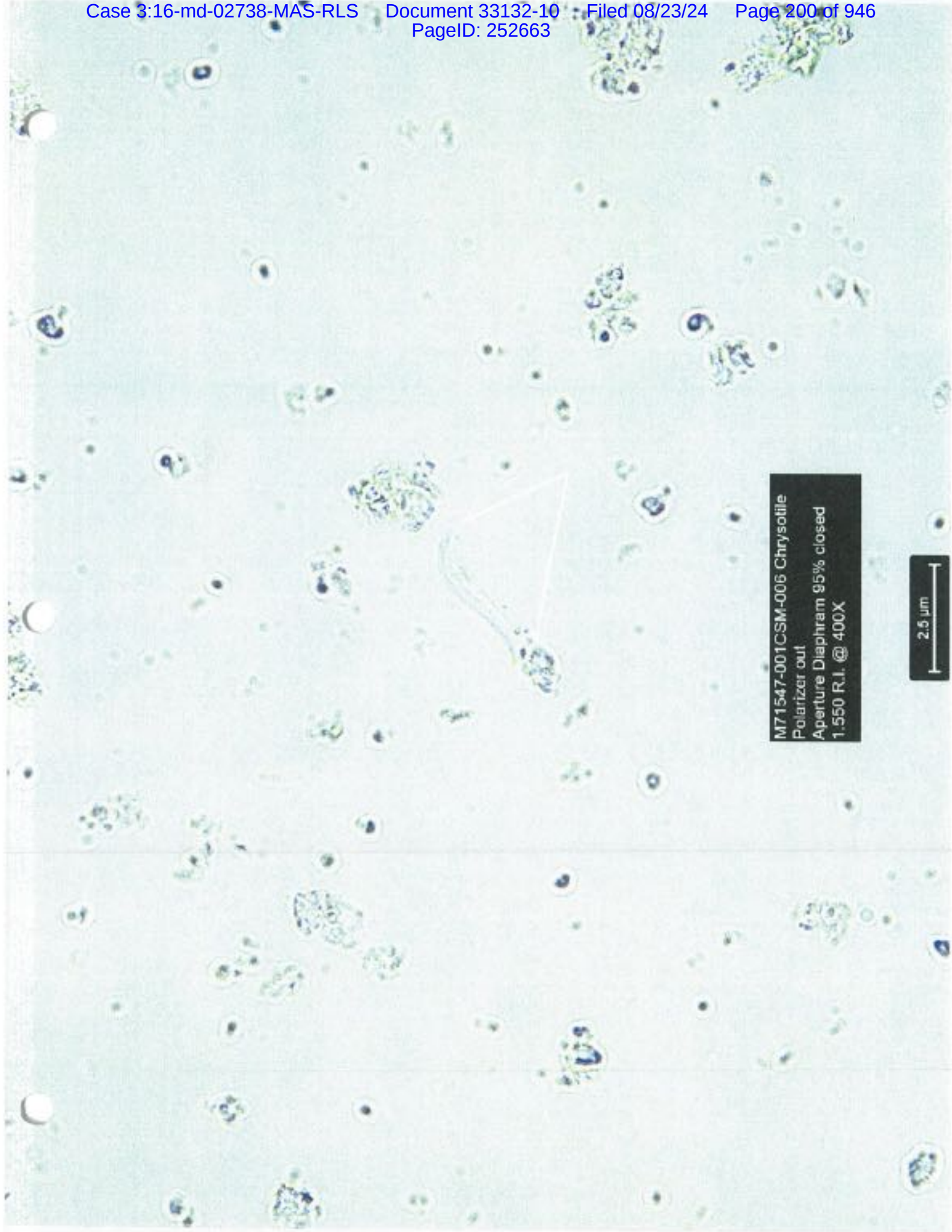






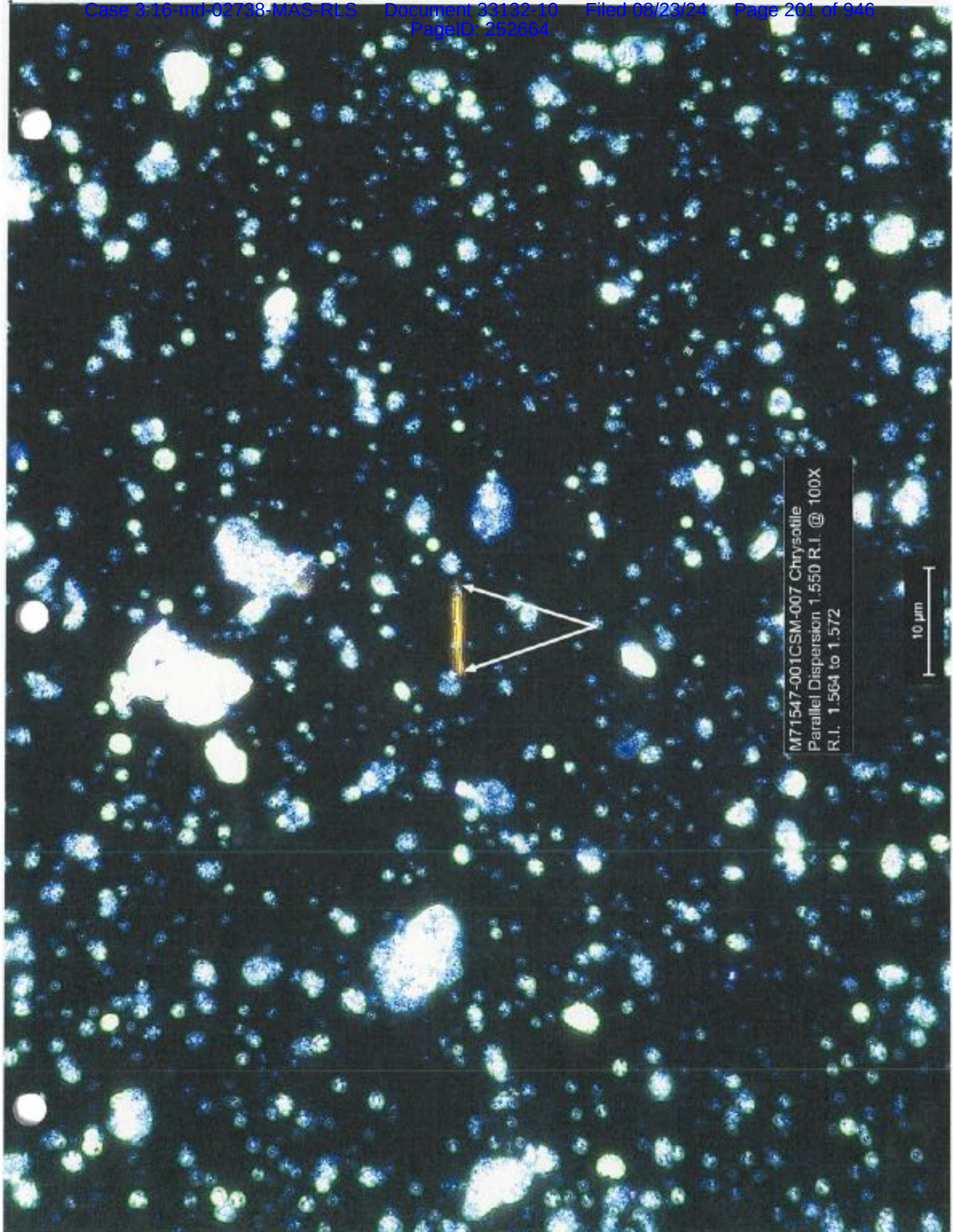
M71547-001CSM-006 Chrysotile
Crossed Polars

2.5 μm



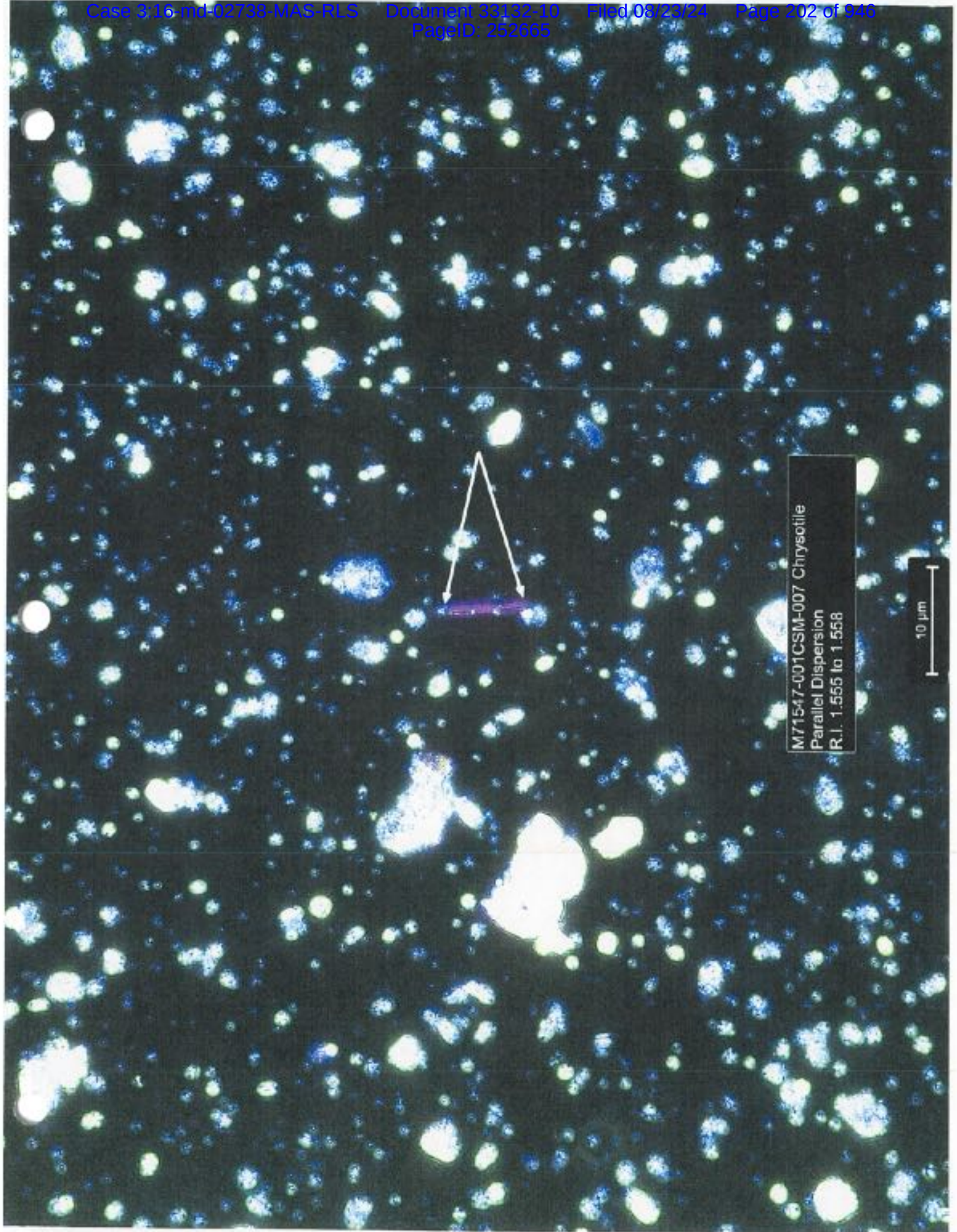
M71547-001CSM-006 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 μ m



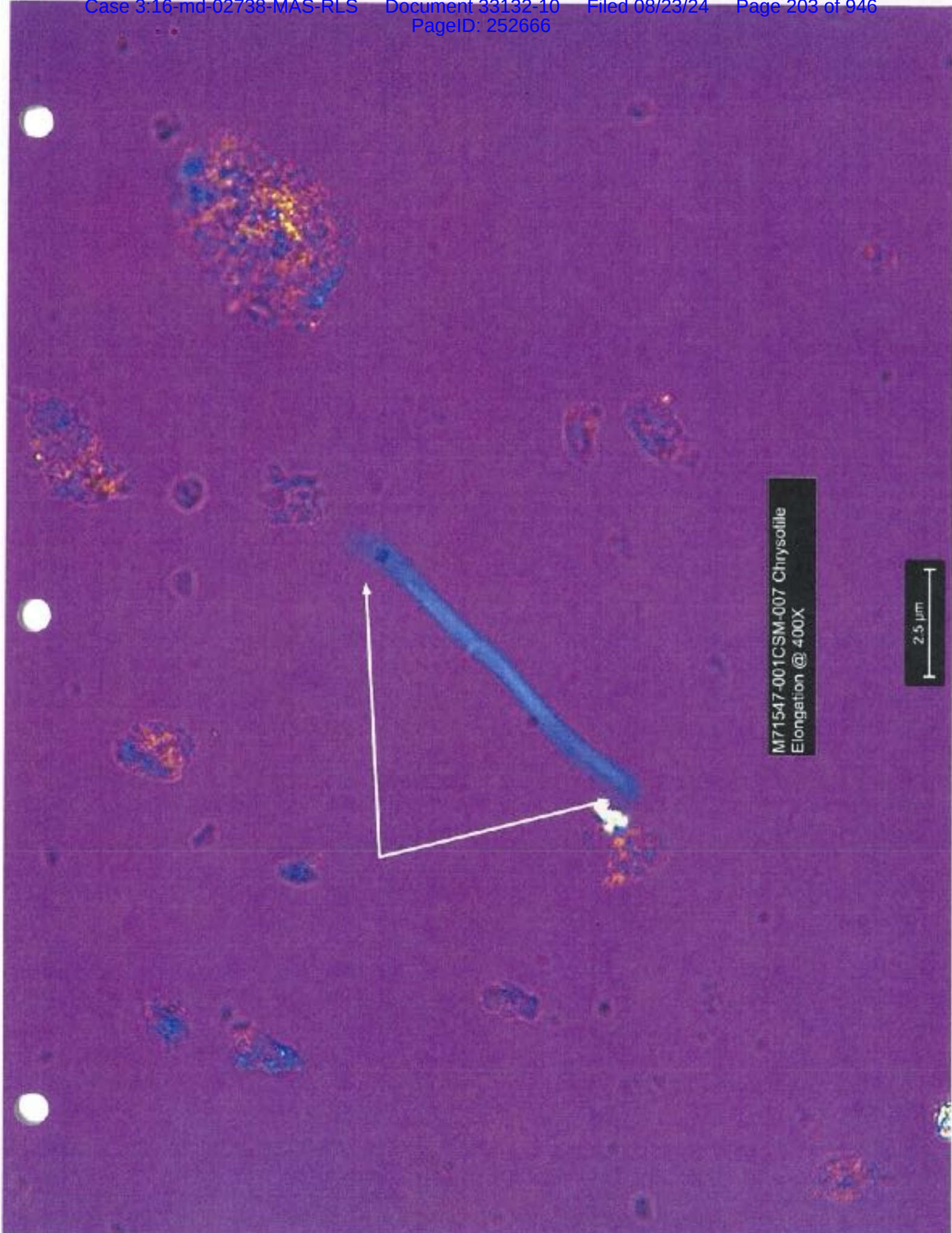
M71547-001CSM-007 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.564 to 1.572

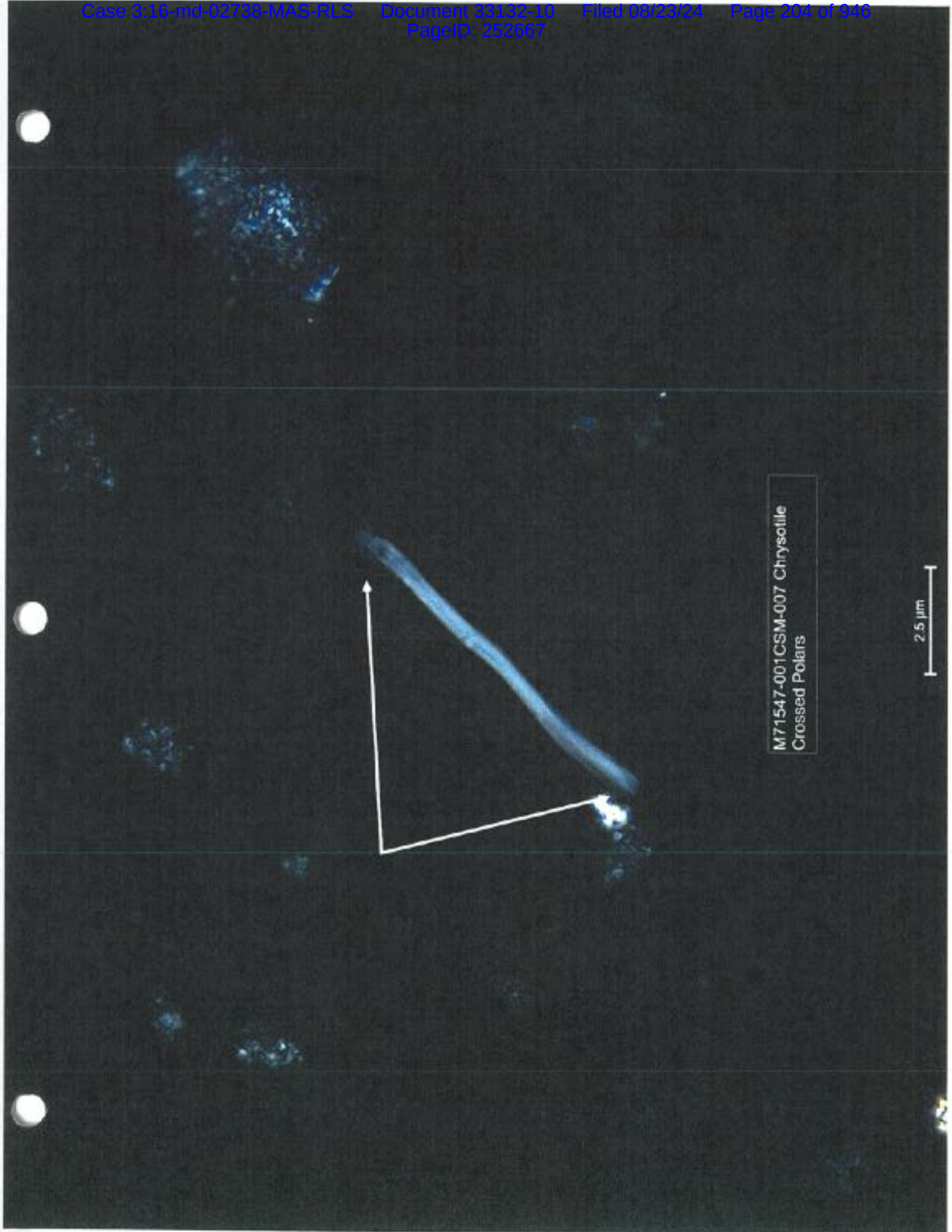
10 μm



M71547-001CSM-007 Chrysotile
Parallel Dispersion
R.I. 1.555 to 1.558

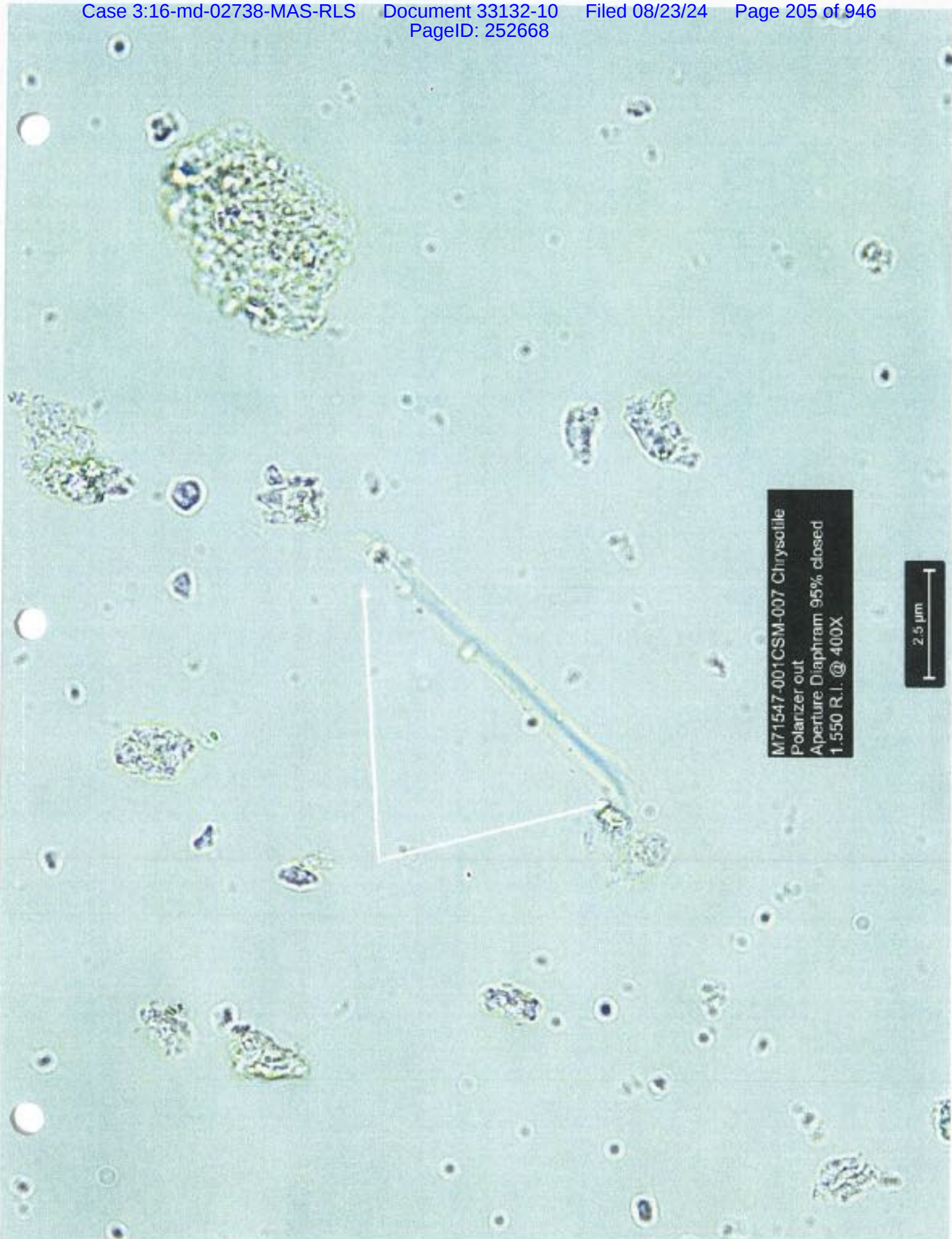
10 μ m



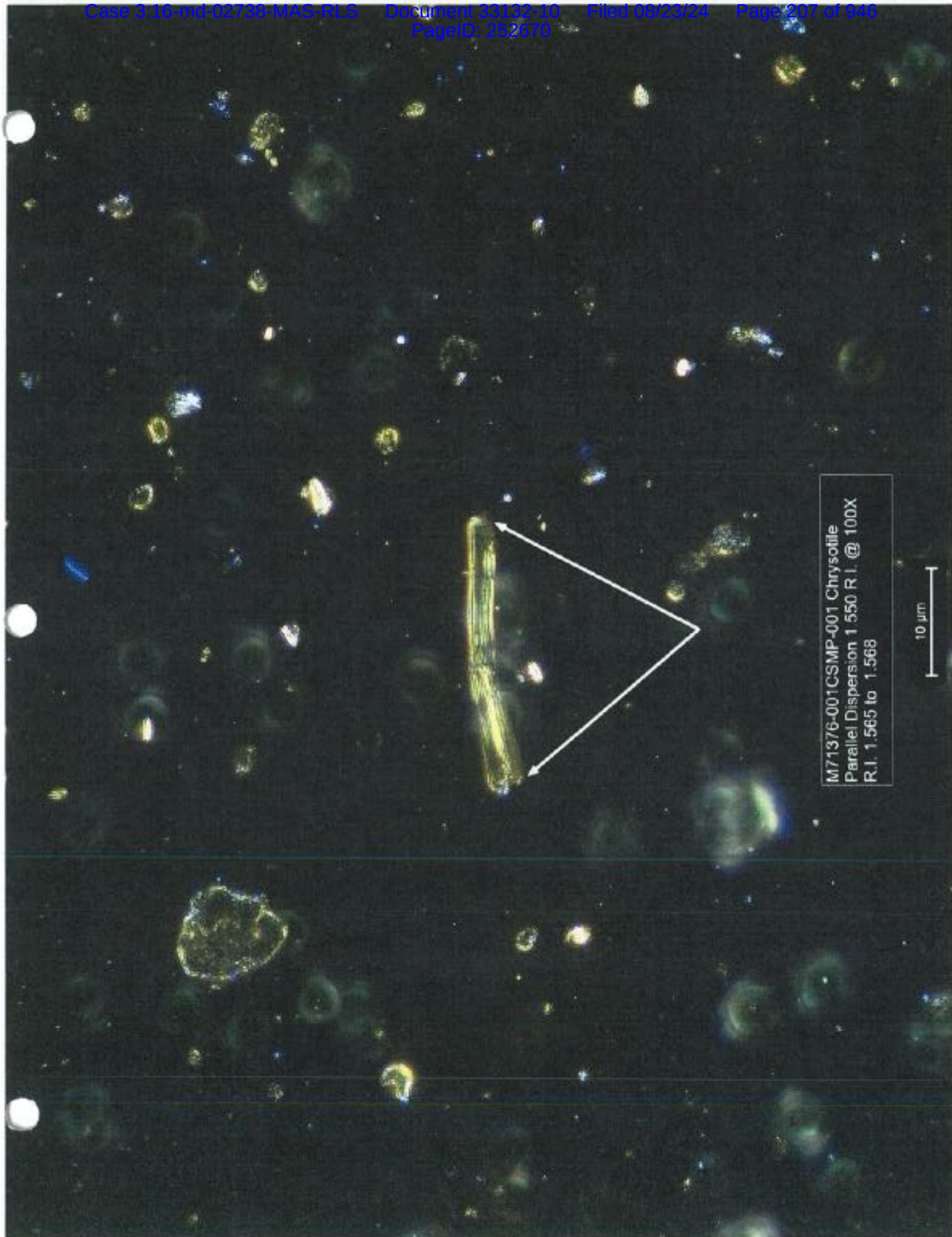


M71547-001CSM-007 Chrysotile
Crossed Polars

2.5 μm

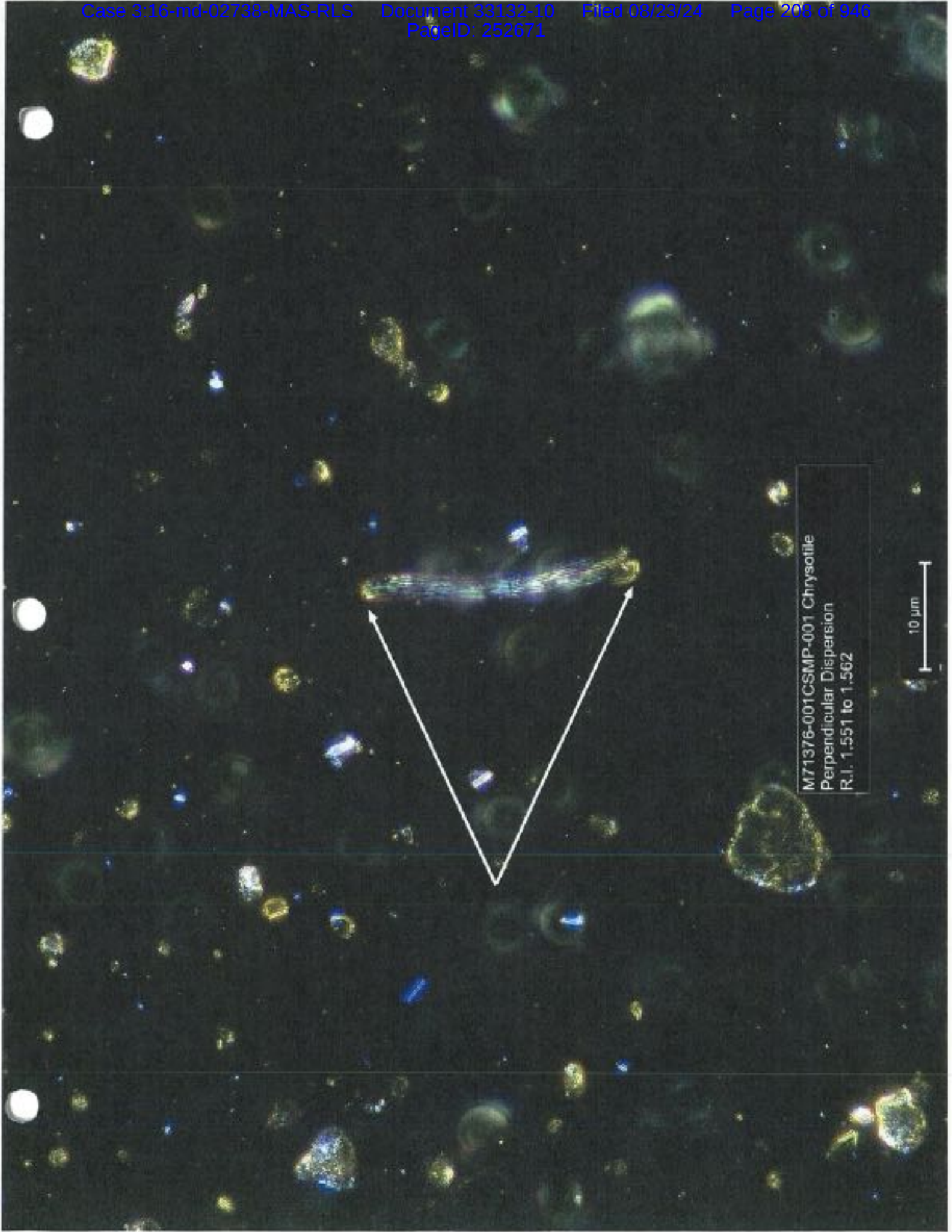


Section 6



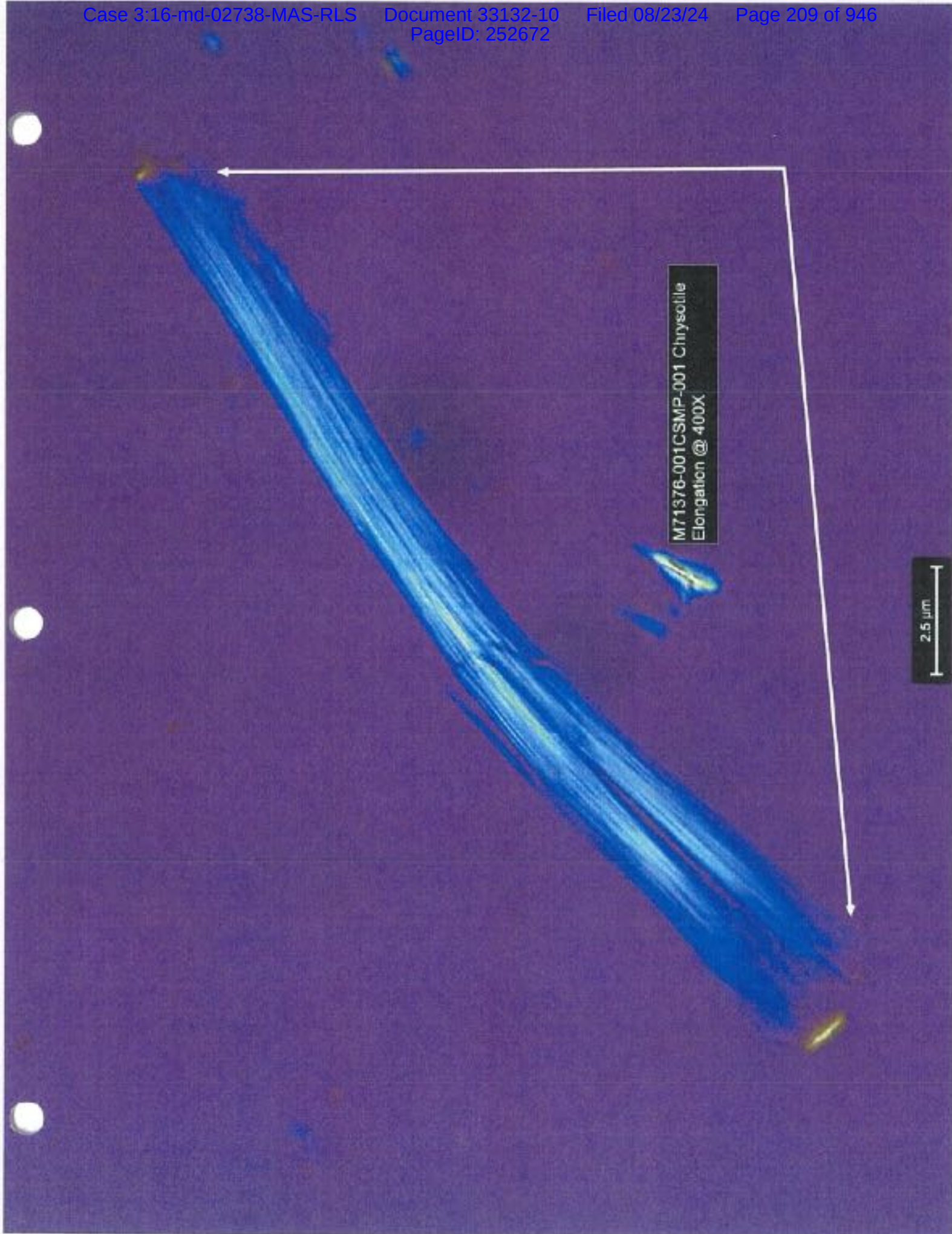
M71376-001CSMP-001 Chrysotile
Parallel Dispersion 1 550 R.I. @ 100X
R.I. 1.565 to 1.568

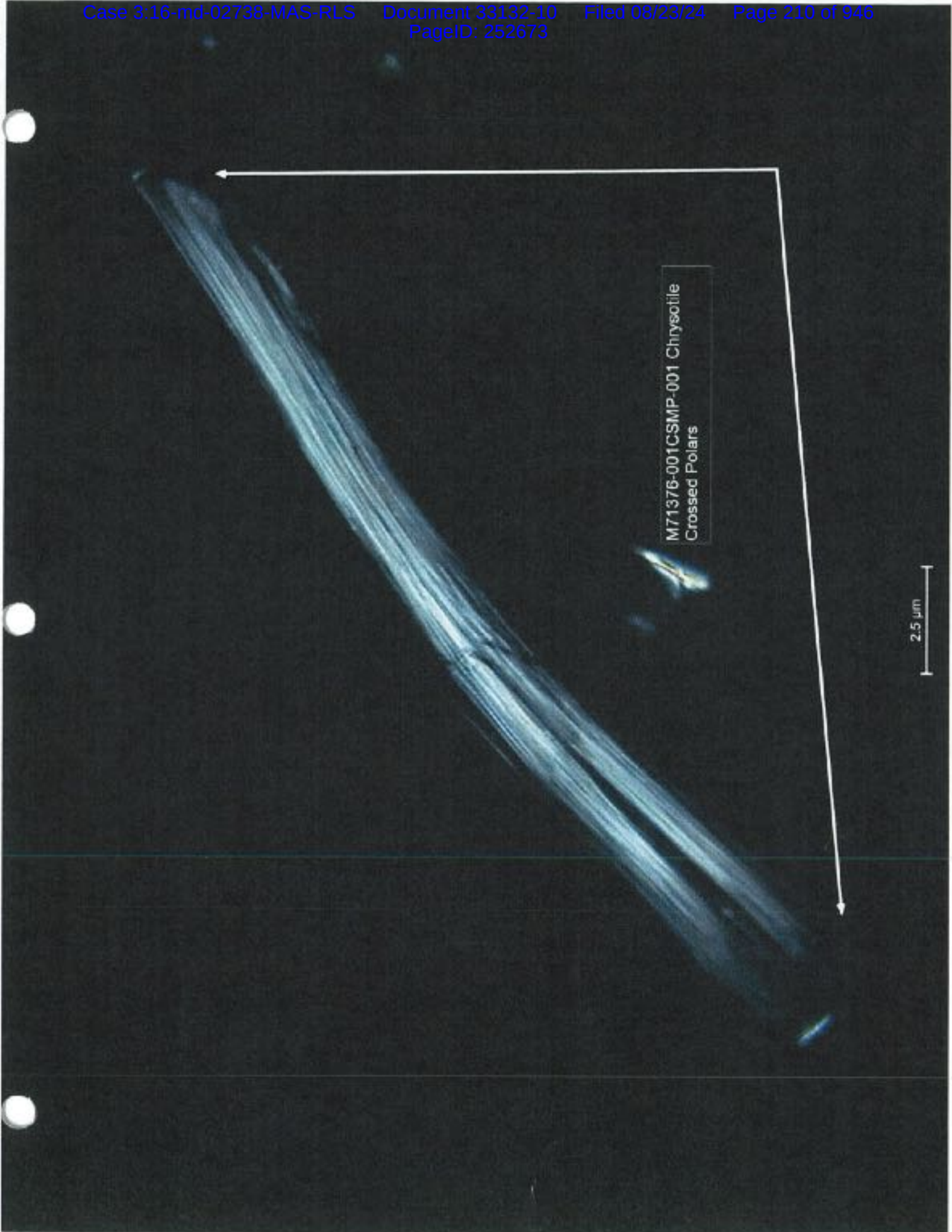
10 μ m



M71376-001CSMP-001 Chrysotile
Perpendicular Dispersion
R.I. 1.551 to 1.562

10 μ m





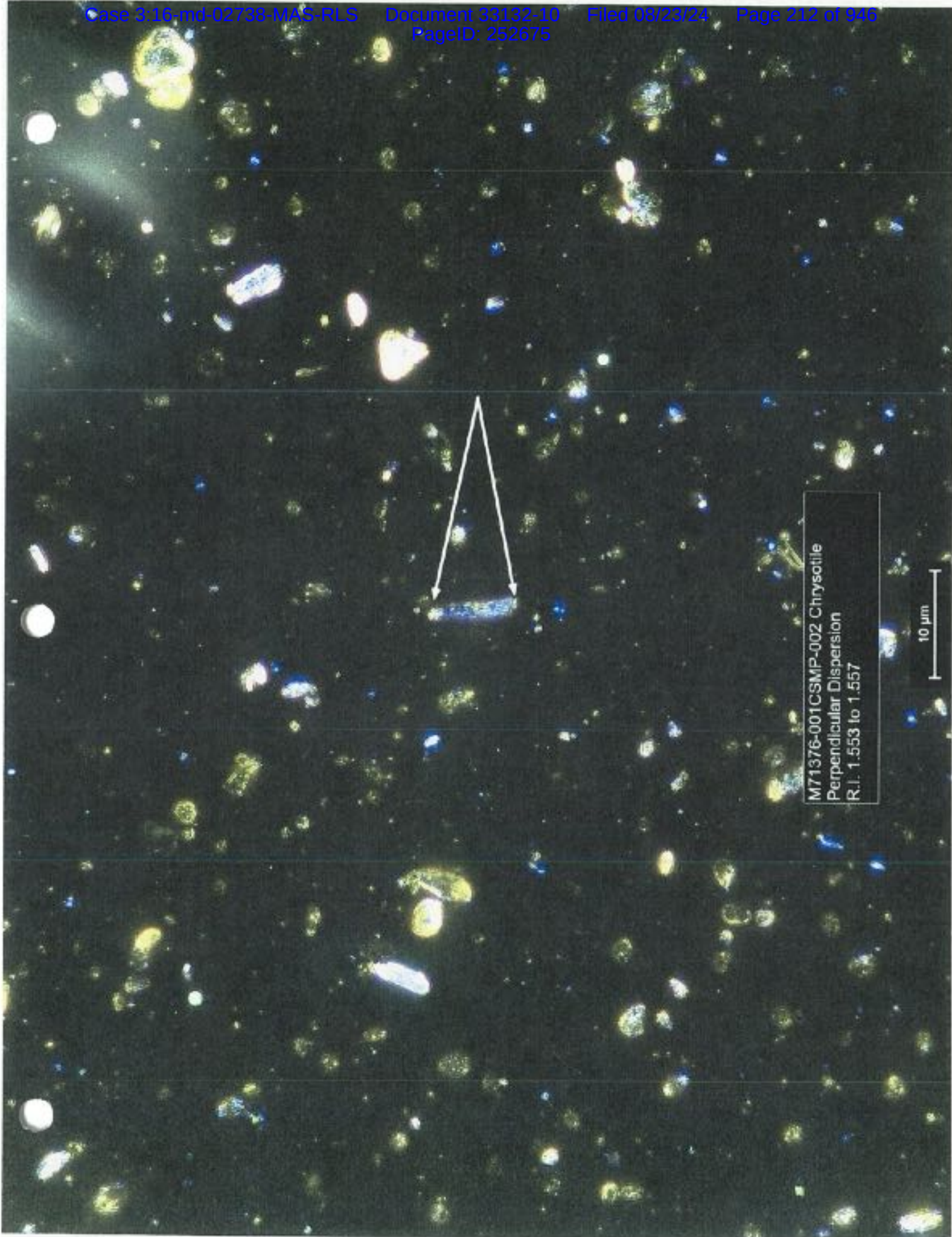
M71376-001CSMP-001 Chrysotile
Crossed Polars

2.5 μm



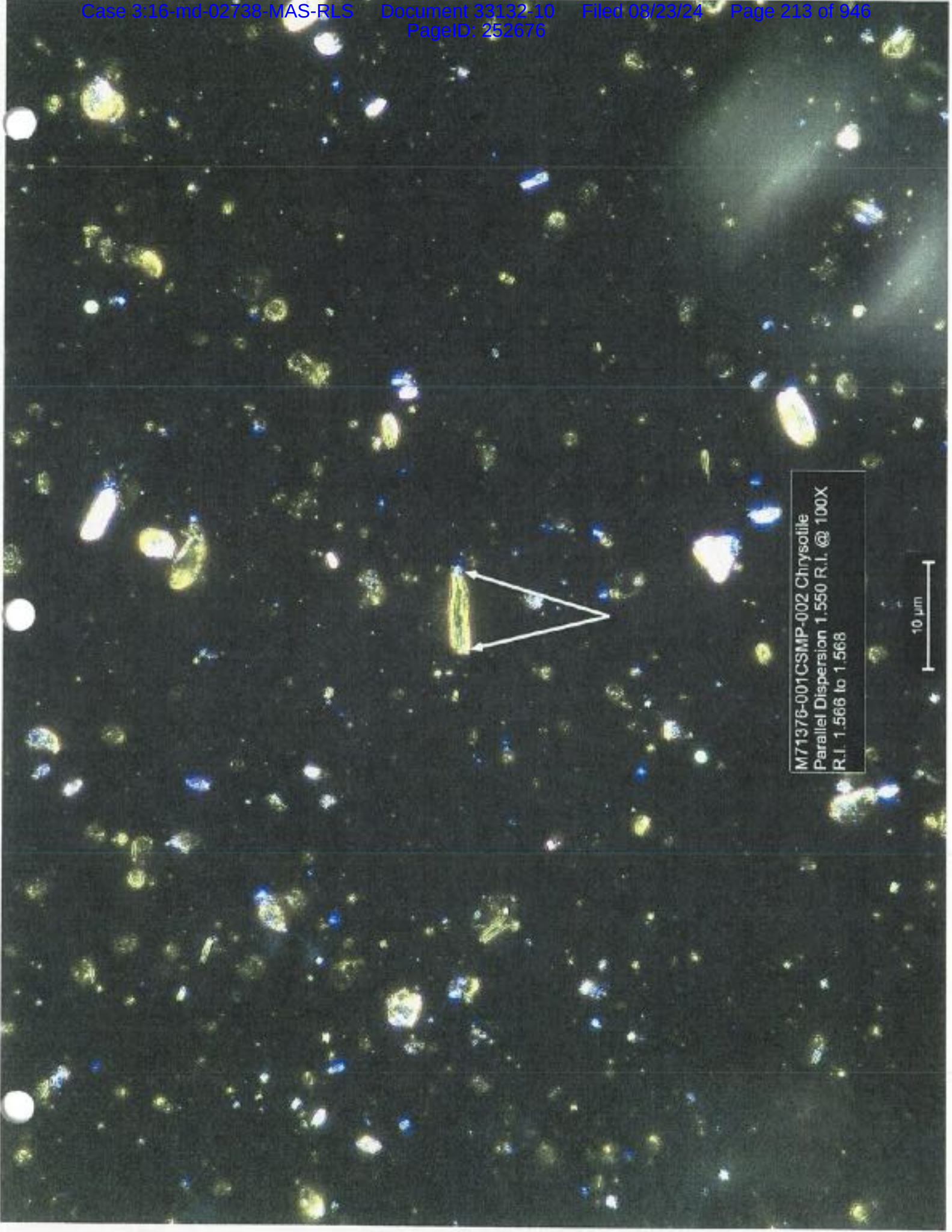
M71376-001CSMP-001 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 μ m



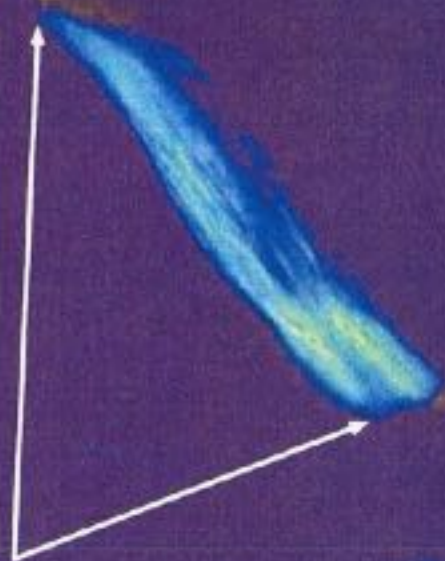
M71376-001CSMP-002 Chrysotile
Perpendicular Dispersion
R.I. 1.553 to 1.557

10 µm



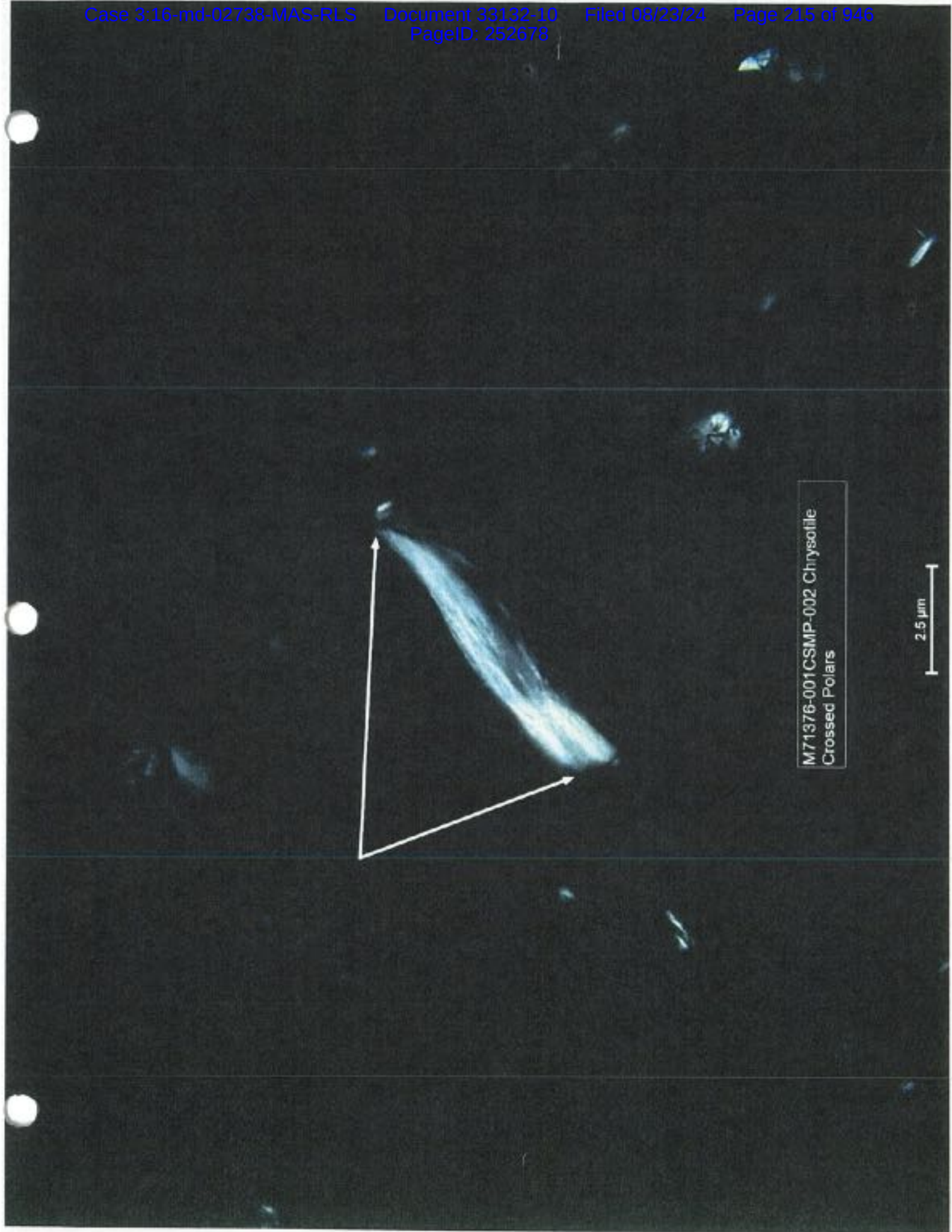
M71376-001CSMP-002 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.566 to 1.568

10 μ m



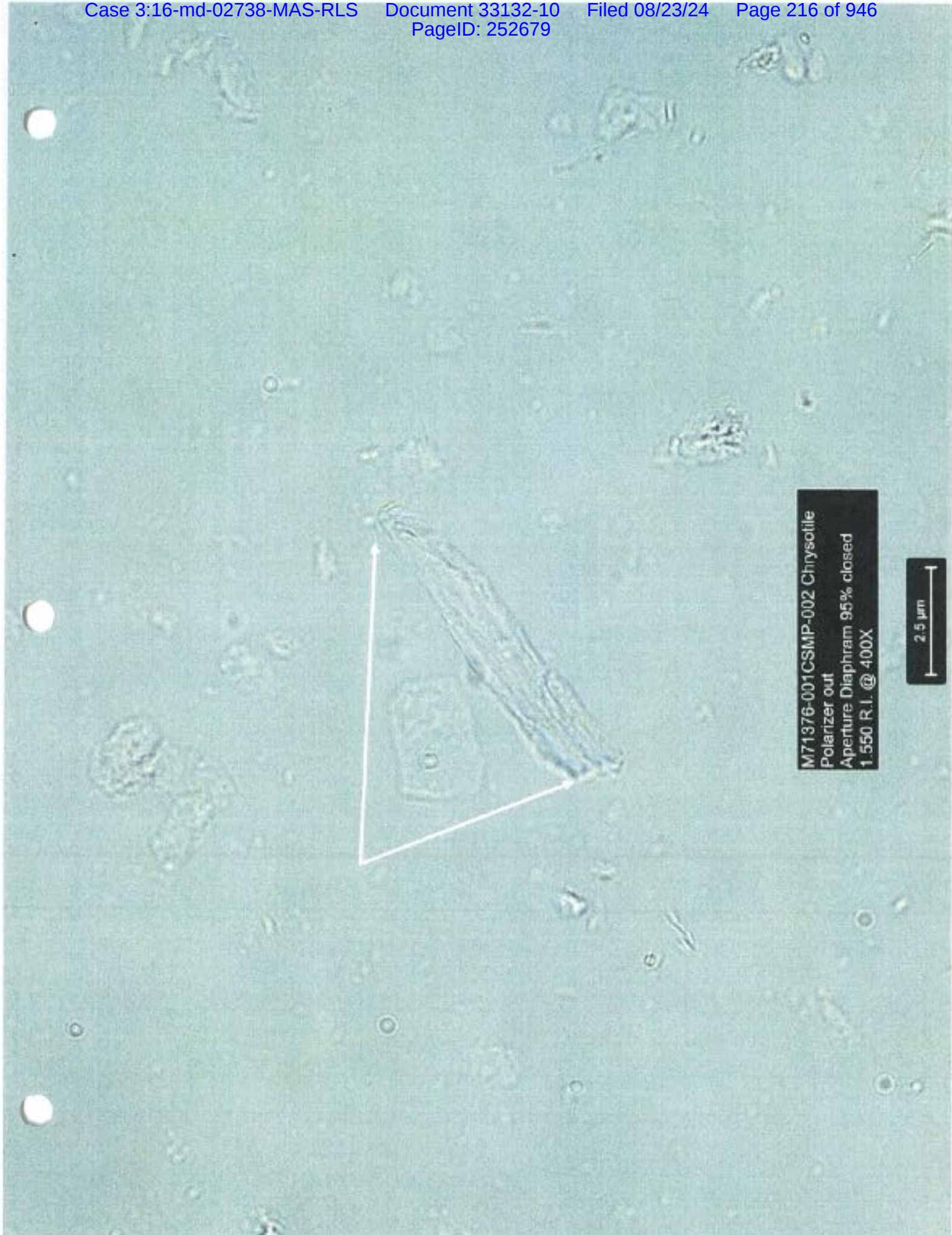
M71376-001CSMP-002 Chrysotile
Elongation @ 400X

2.5 μ m



M71376-001CSMP-002 Chrysothrix
Crossed Polars

2.5 μm



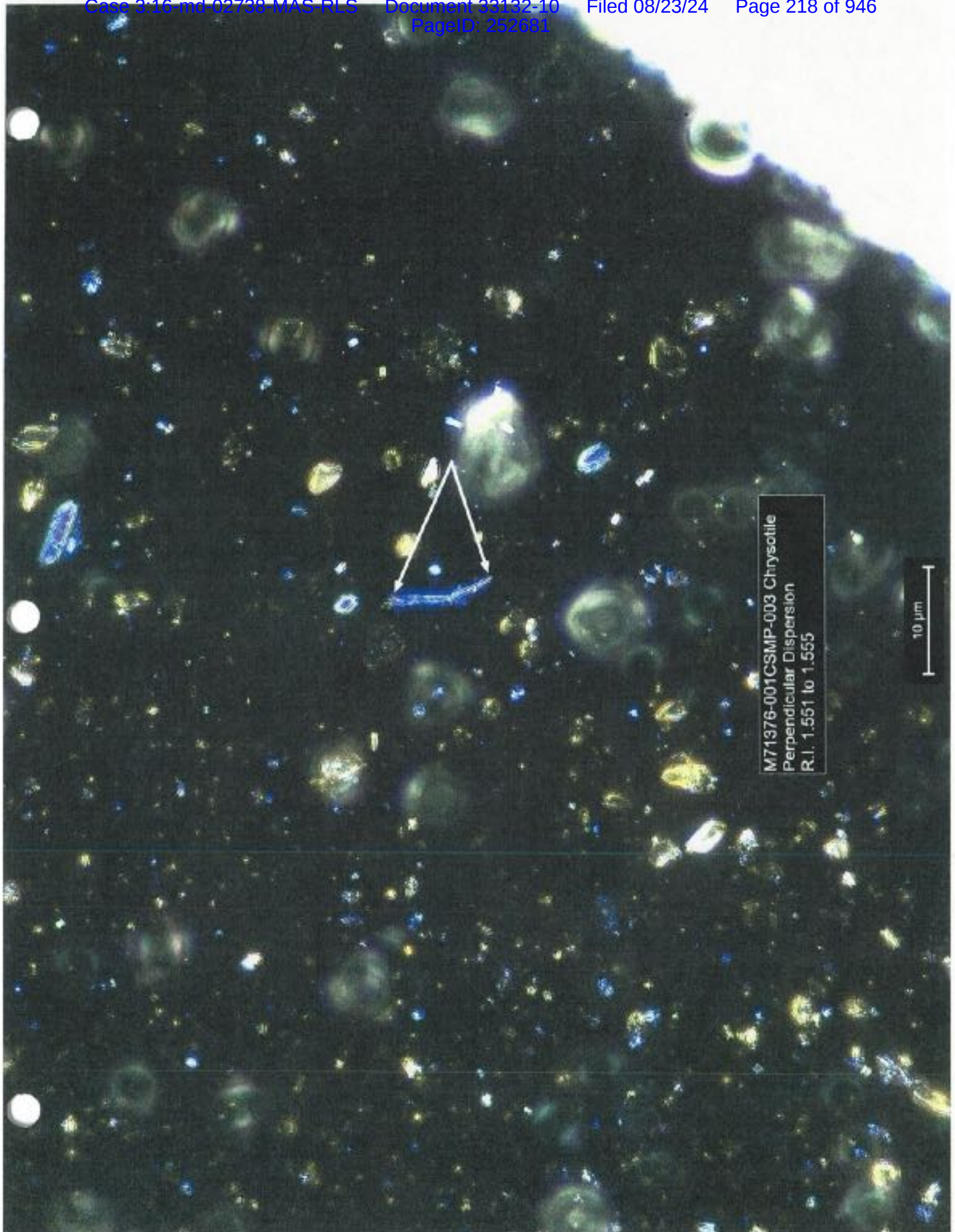
M71376-001CSMP-002 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

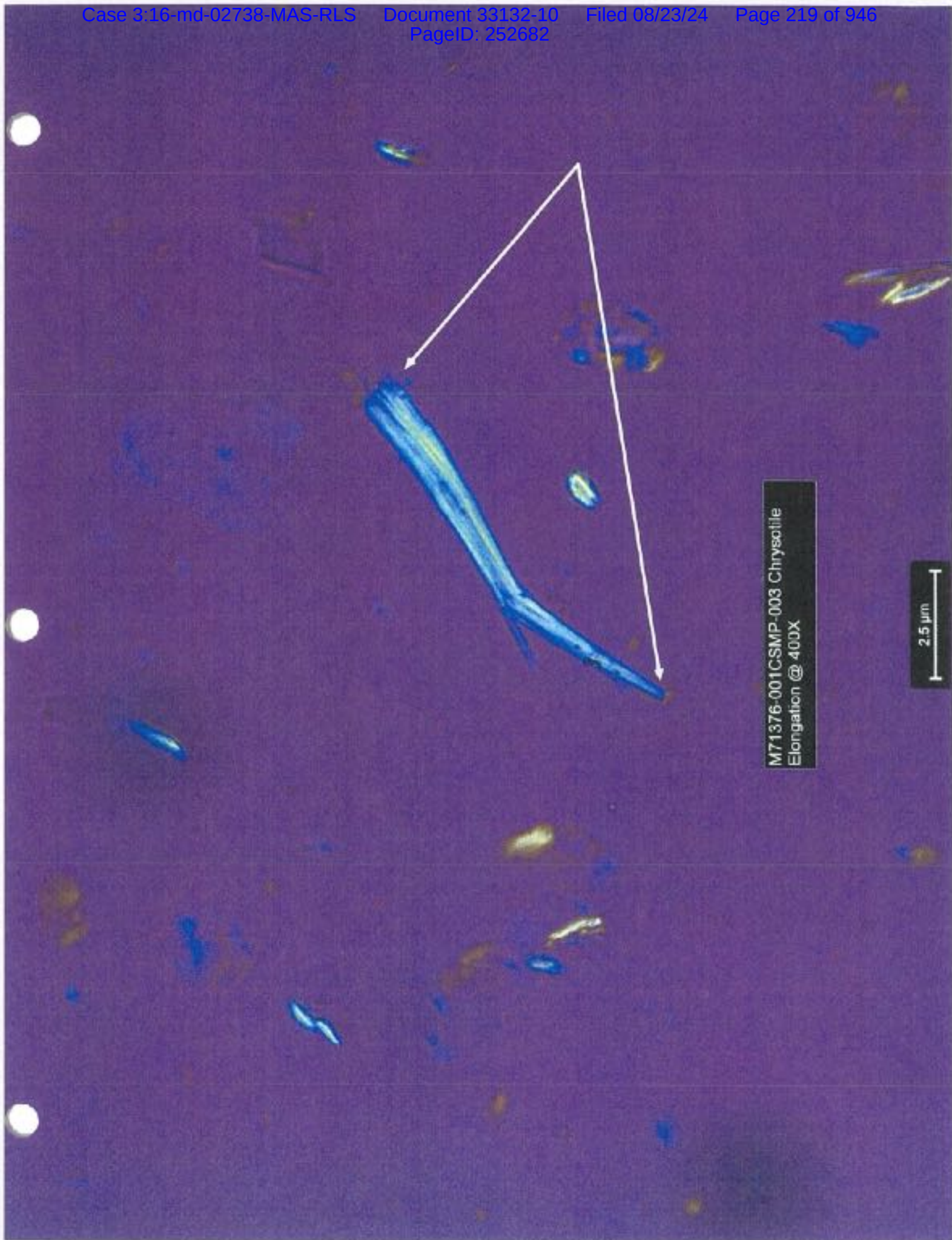
2.5 μ m



M71376-001CSMP-003 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.566 to 1.568

10 μ m



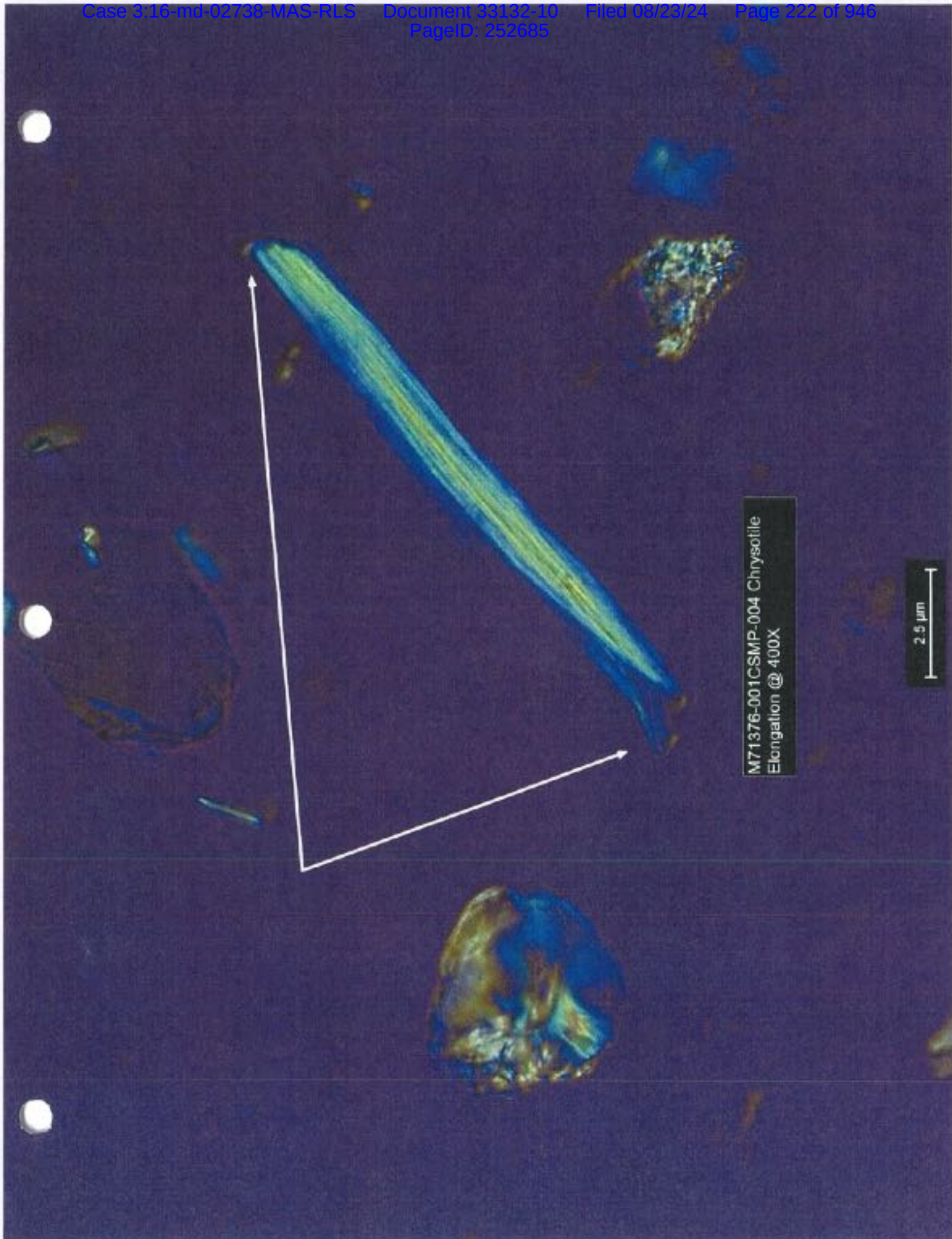




M71376-001CSMP-004 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.564 to 1.567

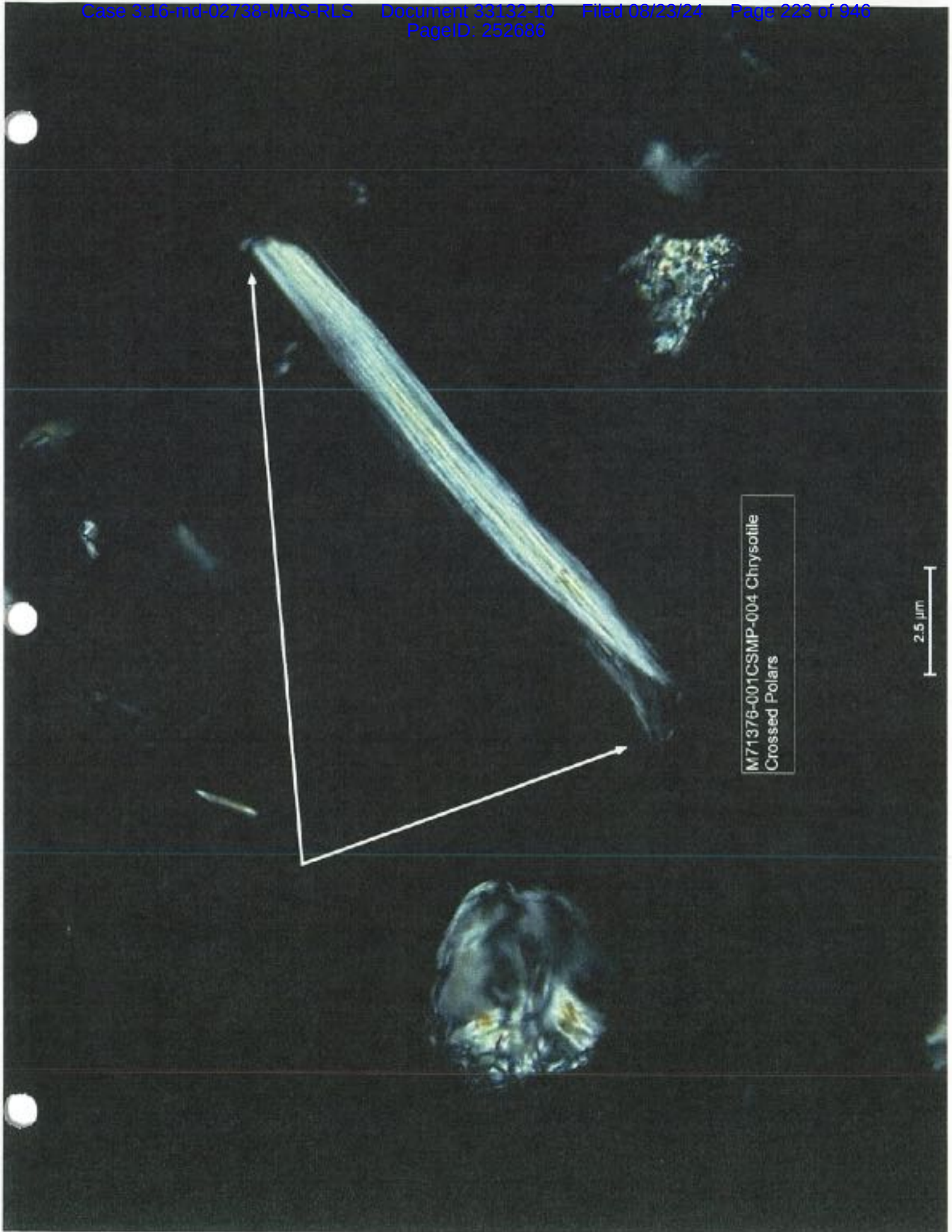
10 μm





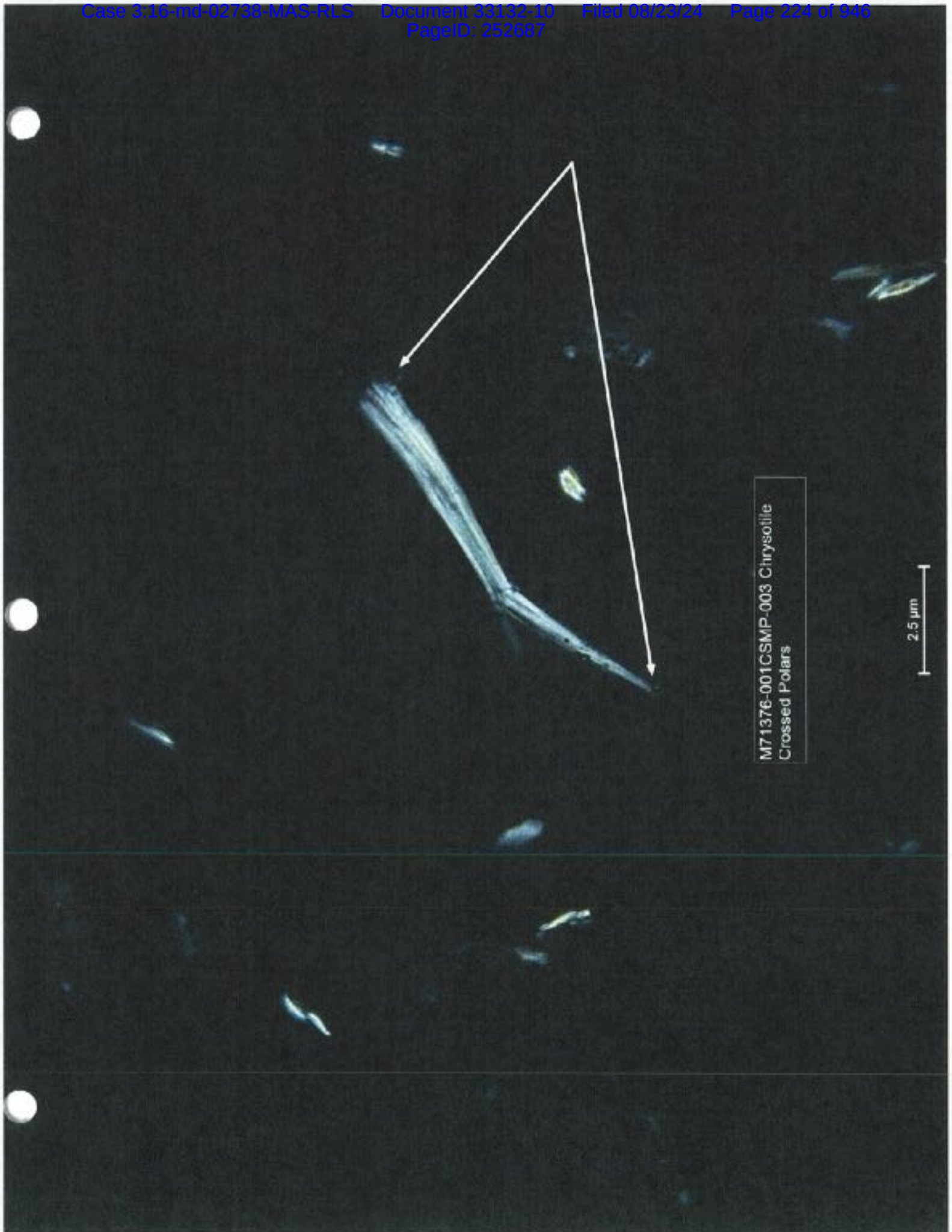
M71376-001CSMP-004 Chrysotile
Elongation @ 400X

2.5 μm



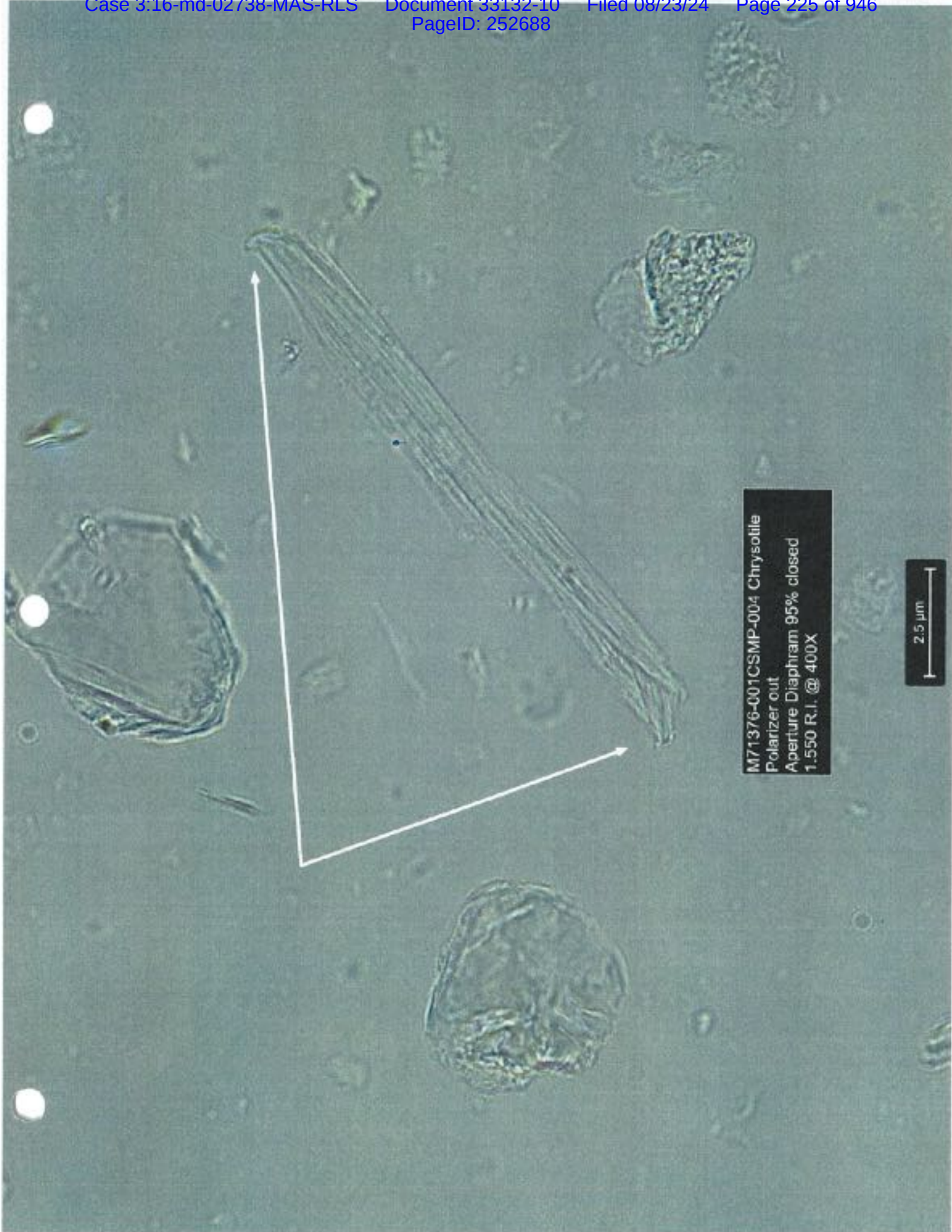
M71376-001CSMP-004 Chrysotile
Crossed Polars

2.5 μ m



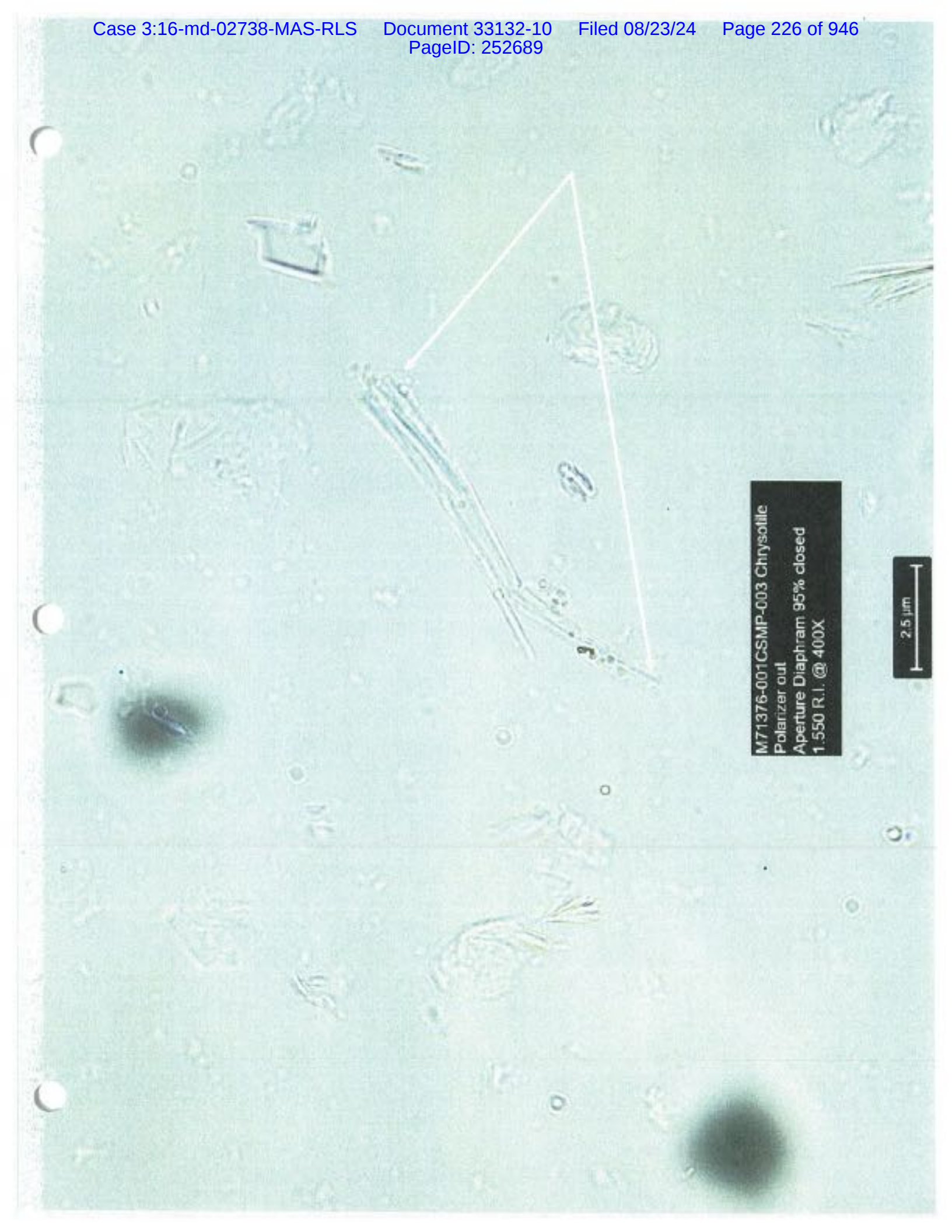
M71376-001CSMP-003 Chrysotile
Crossed Polars

2.5 μm



M71376-001CSMP-004 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

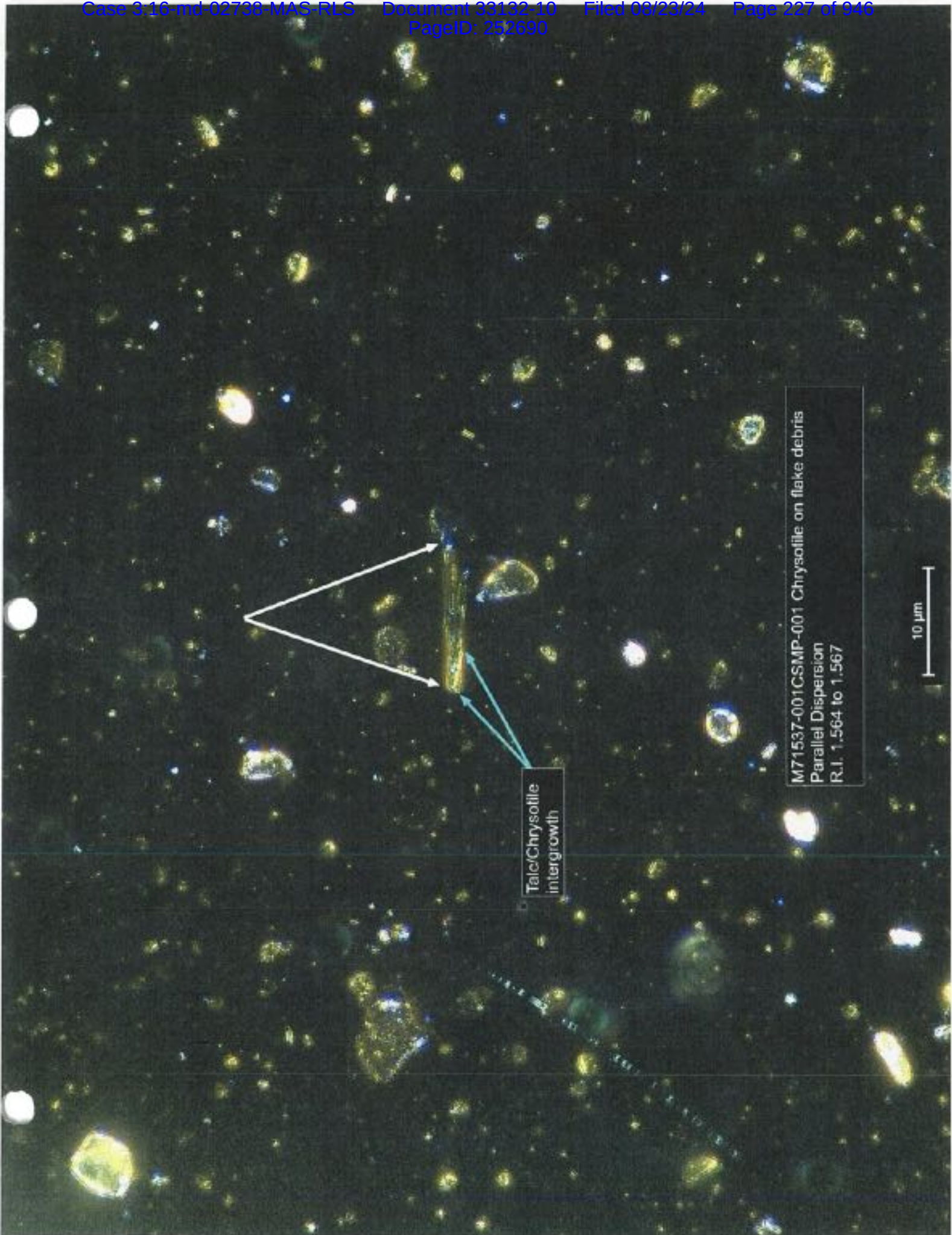
2.5 μ m

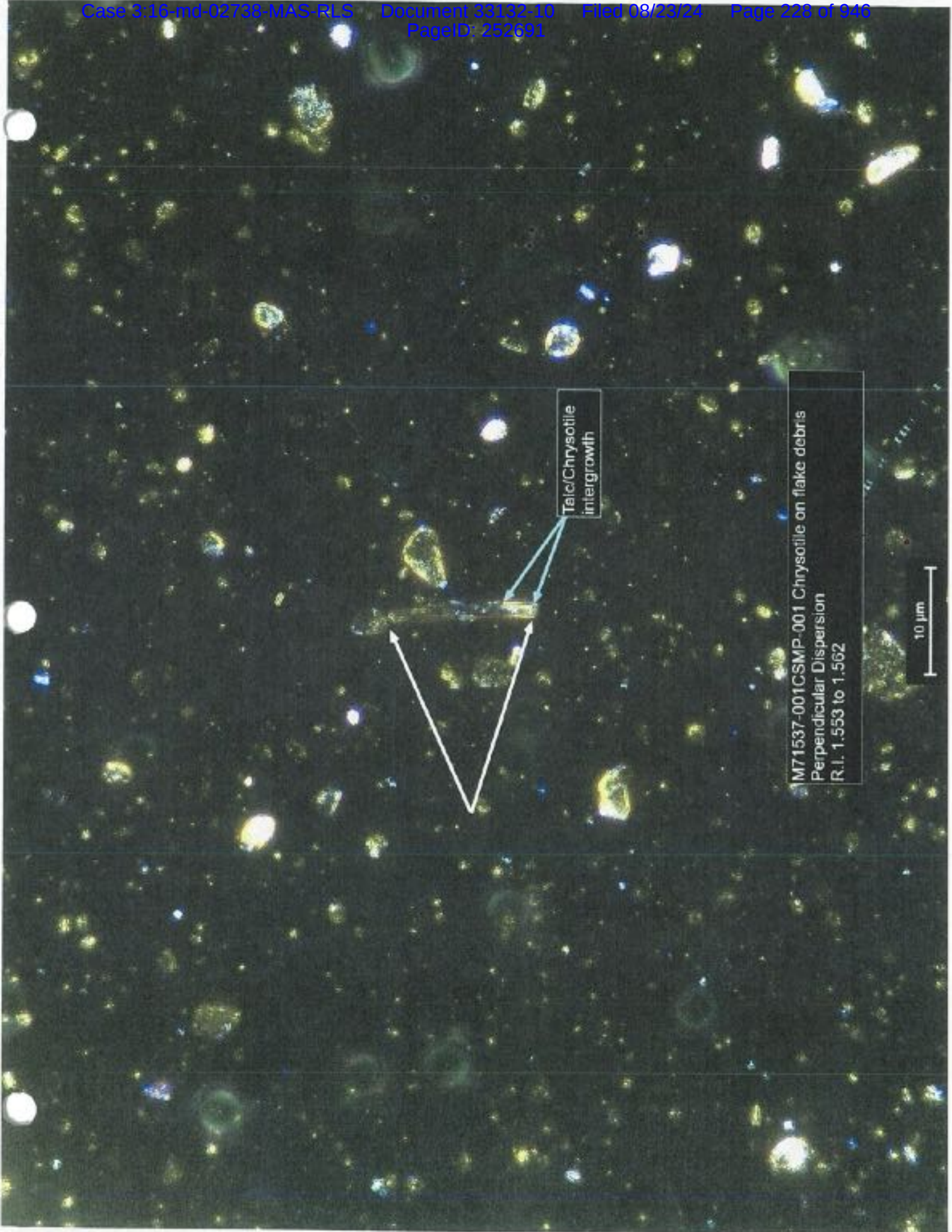


A transmission electron micrograph (TEM) showing numerous chrysotile fibers. The fibers are thin, elongated, and often curved, with some showing distinct concentric layering. A red line is drawn across the center of the image, highlighting a specific fiber. A scale bar in the bottom right corner indicates a length of 2.5 micrometers. Technical specifications for the image are provided in a black box on the right side.

M71376-001CSMP-003 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 μm

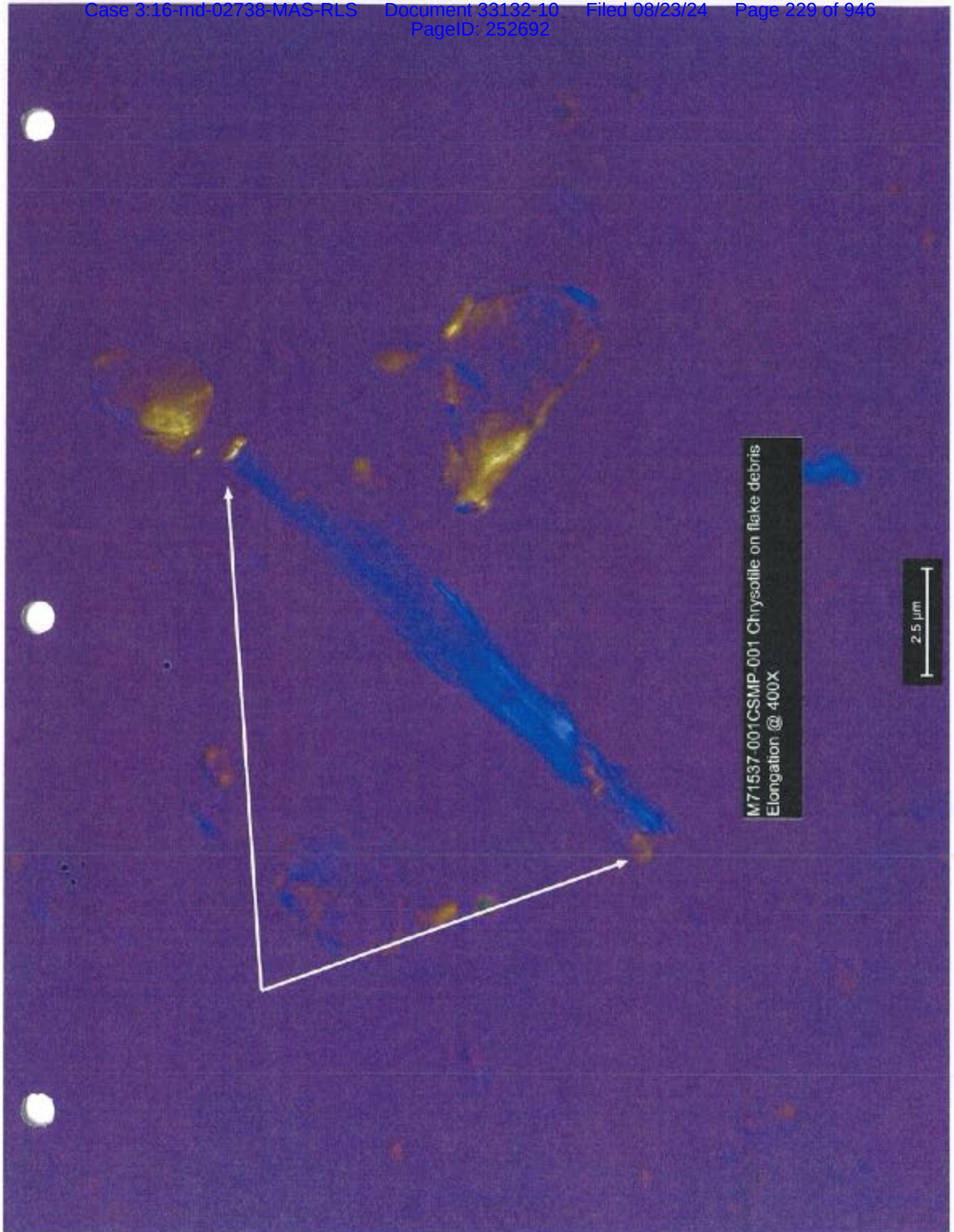




Talc/Chrysotile
intergrowth

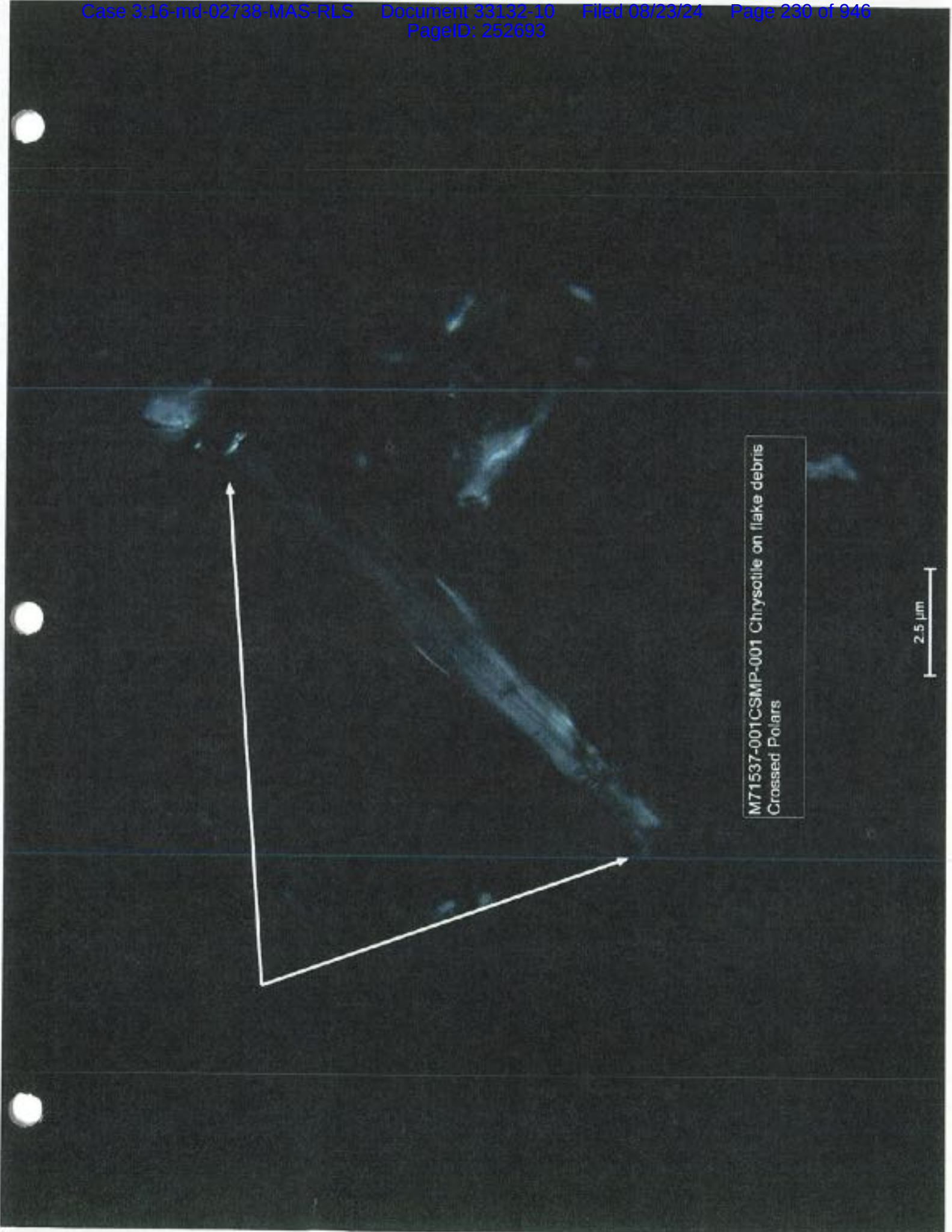
M71537-001CSMP-001 Chrysotile on flake debris
Perpendicular Dispersion
R.I. 1.553 to 1.562

10 μ m



M71537-001CSMP-001 Chrysotile on flake debris
Elongation @ 400X

2.5 μm



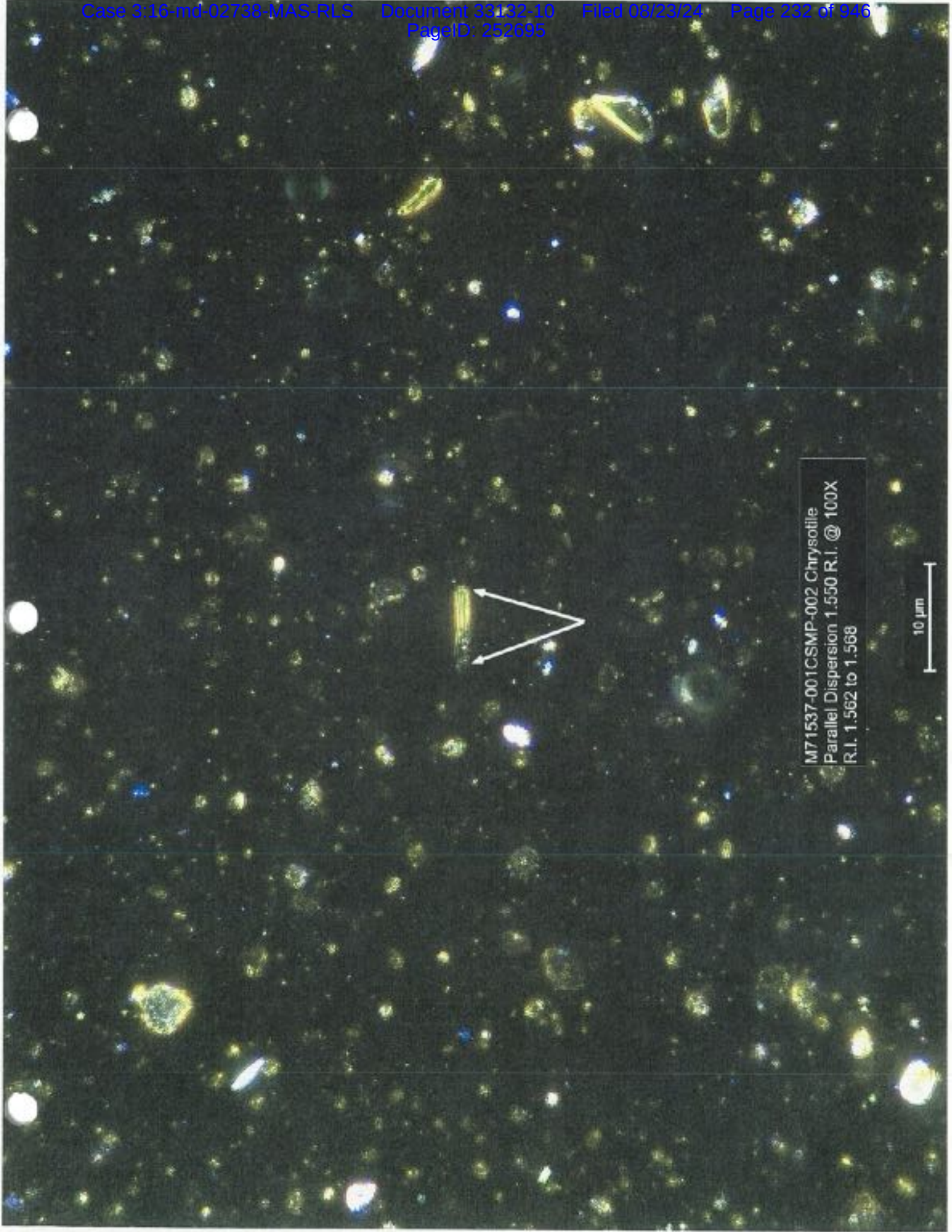
M71537-001CSMP-001 Chrysotile on flake debris
Crossed Polars

2.5 μm



M71537-001CSMP-001 Chrysotile on flake debris
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

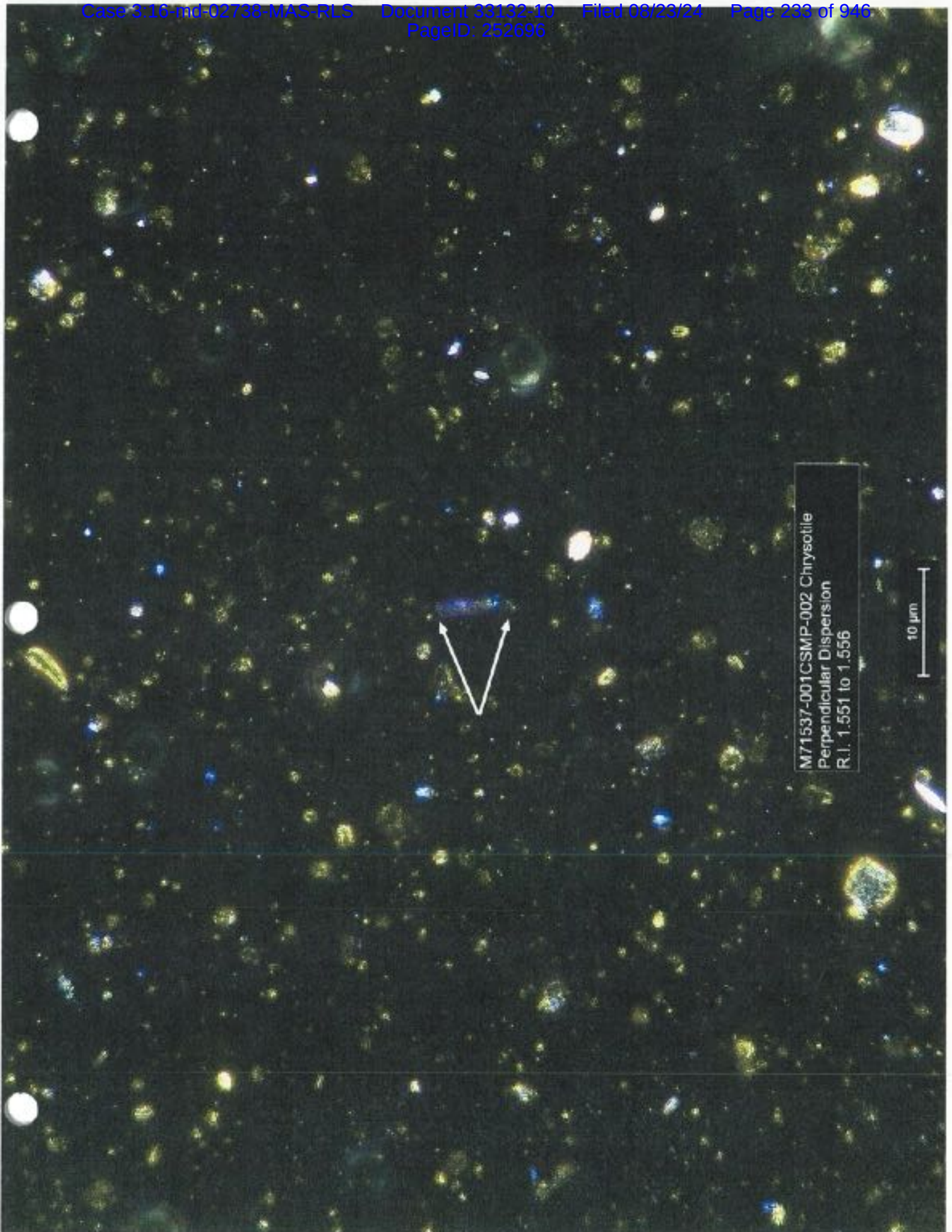
2.5 μm

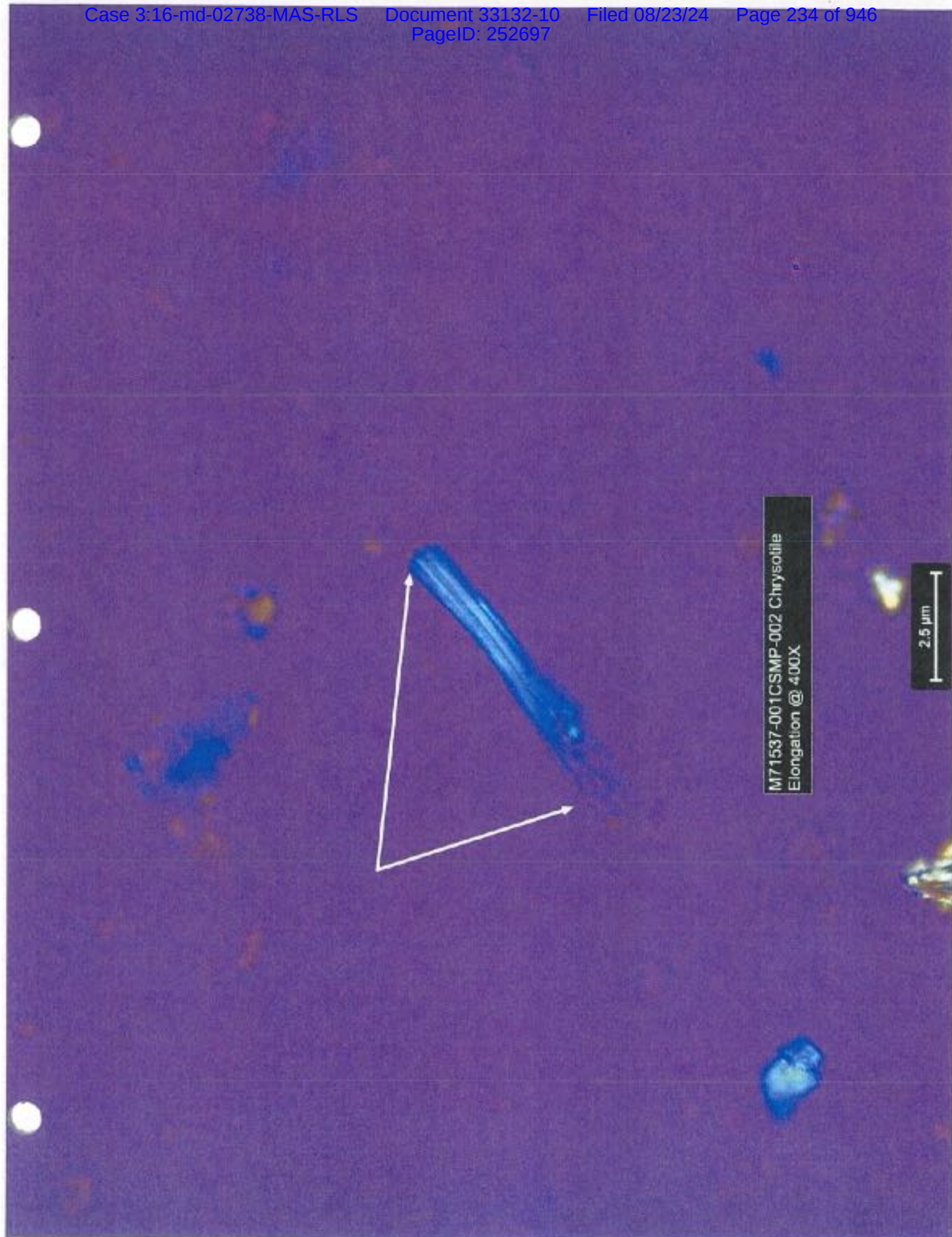


M71537-001CSMP-002 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.562 to 1.568



10 μ m





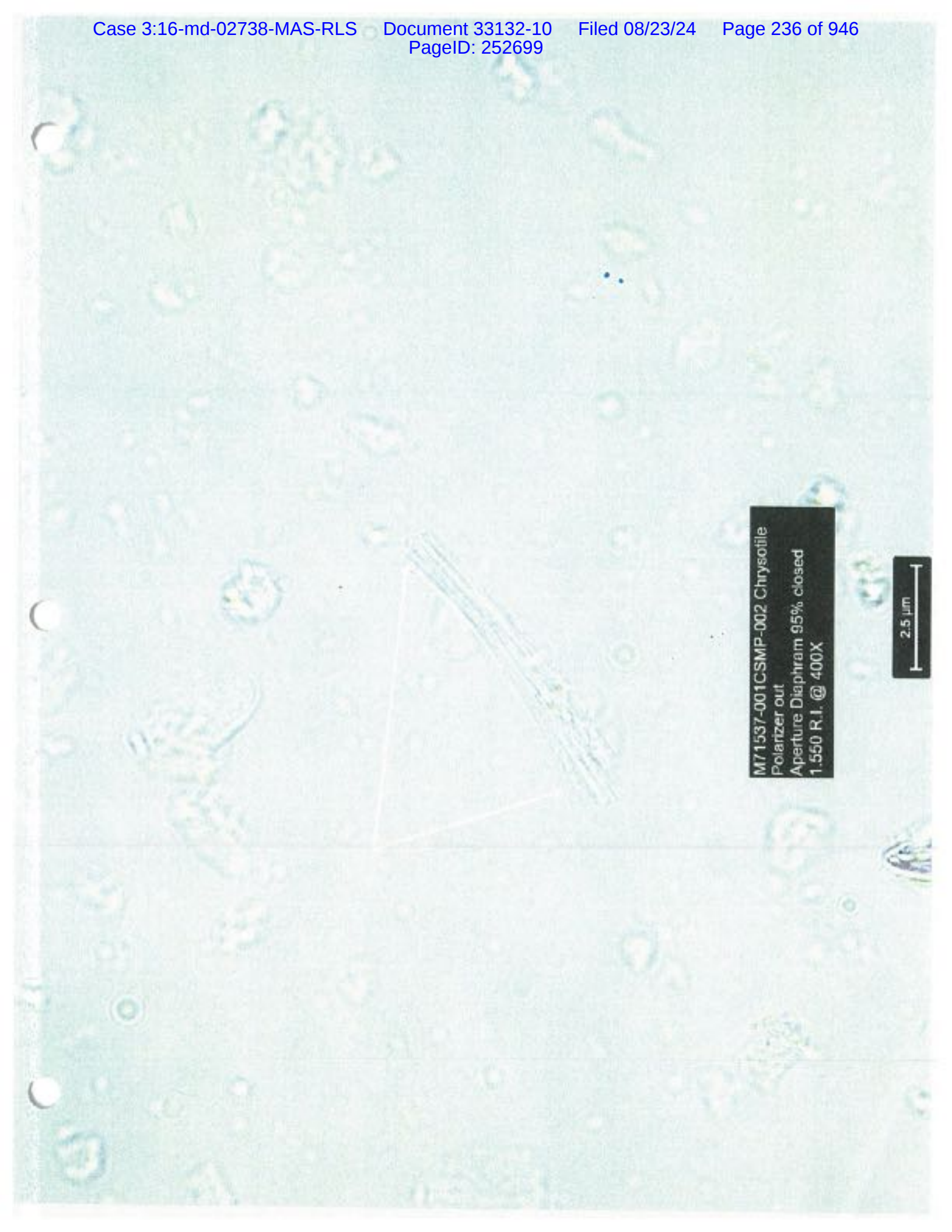
M71537-001CSMP-002 Chrysotile
Elongation @ 400X

2.5 μm



M71537-001CSMP-002 Chrysotile
Crossed Polars

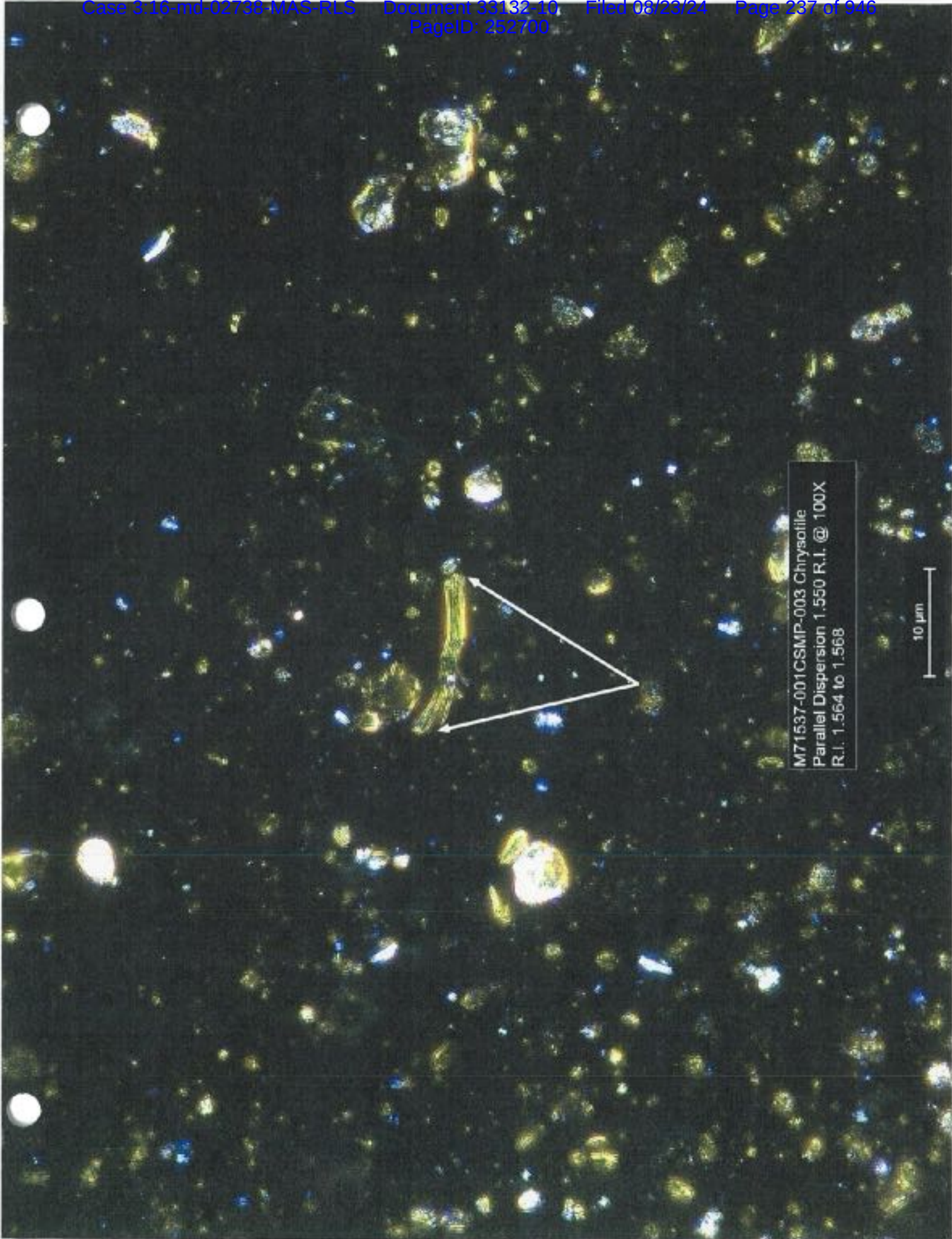
2.5 μm



A transmission electron micrograph (TEM) showing numerous chrysotile fibers. The fibers are thin, needle-shaped, and appear as bright, elongated structures against a darker background. Some fibers are isolated, while others are bundled together. A white rectangular box highlights a specific region of the image, likely for further analysis or magnification.

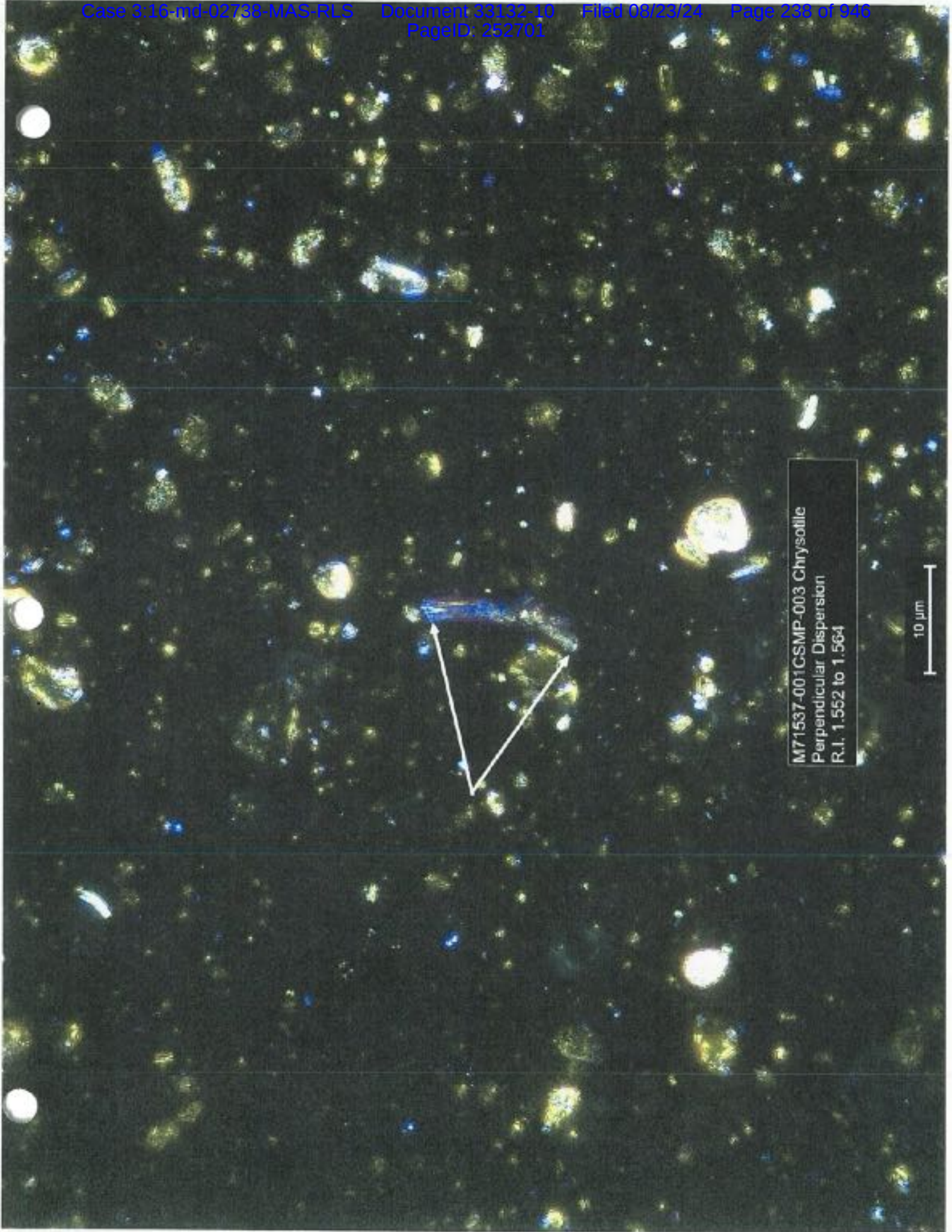
M71537-001CSMP-002 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 μ m



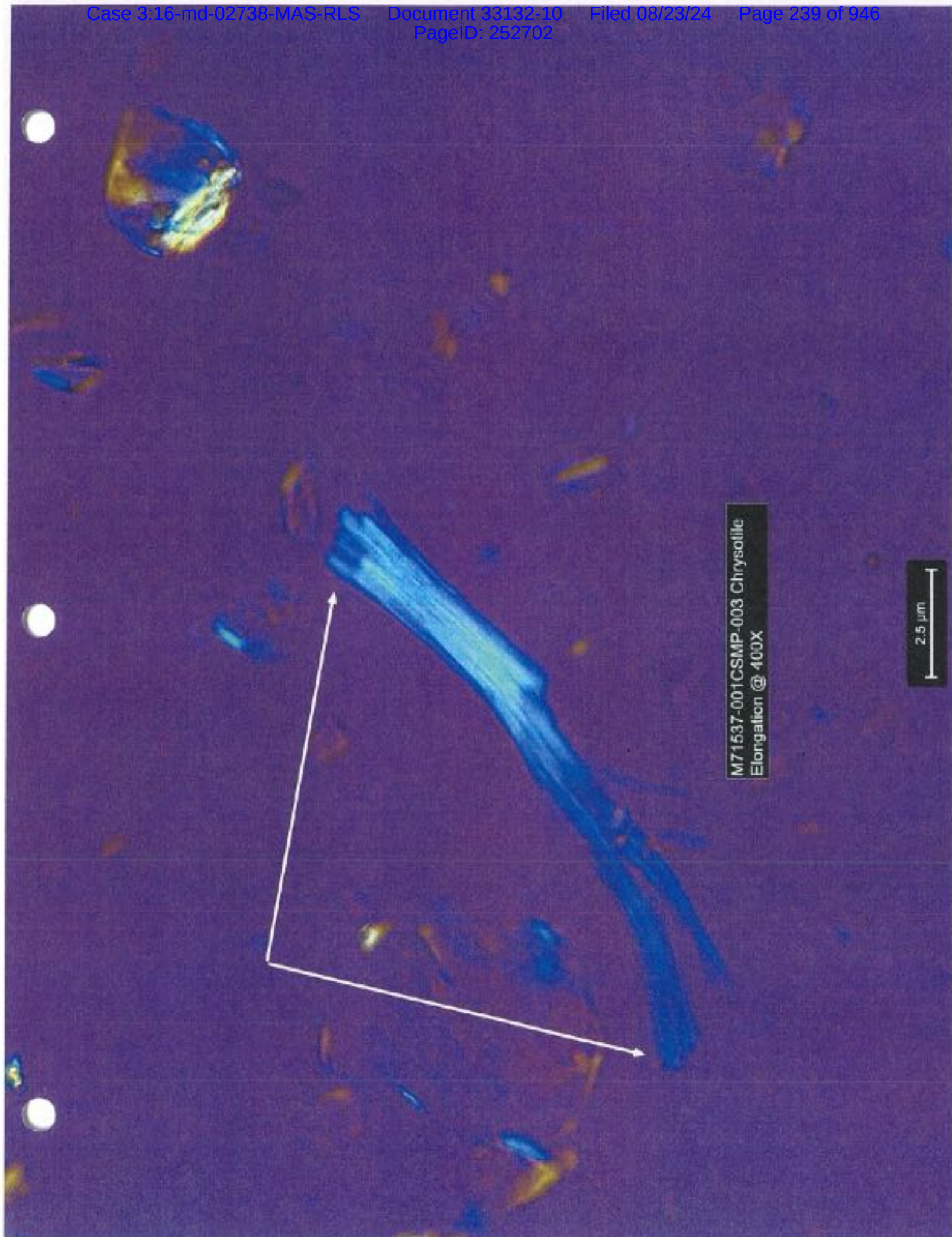
M71537-001CSMP-003 Chrysotile
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.564 to 1.568

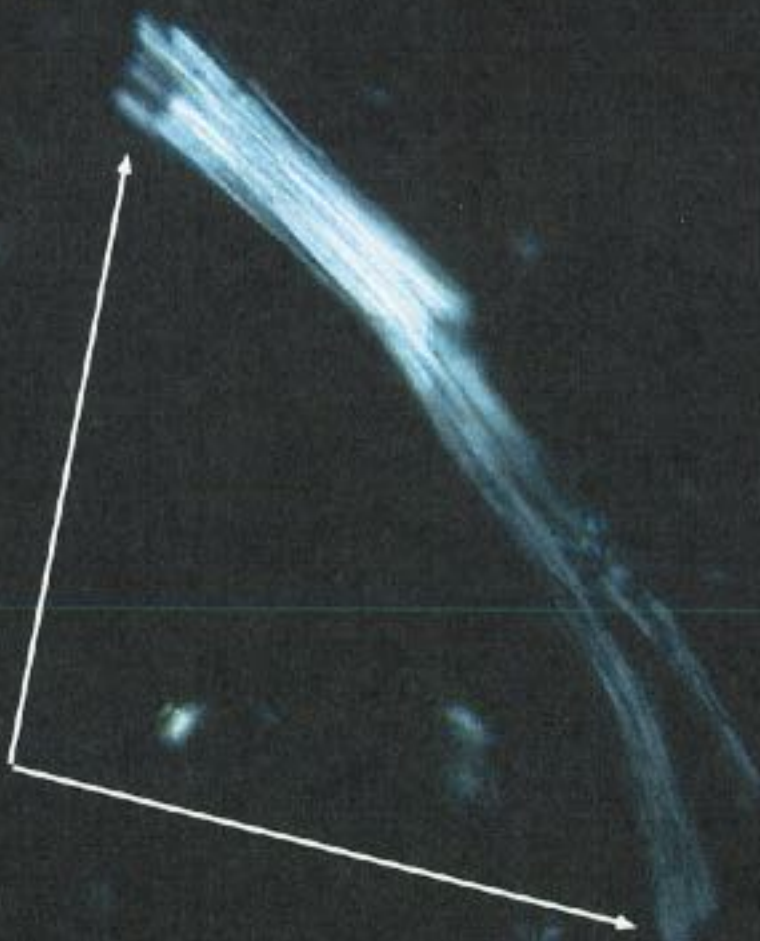
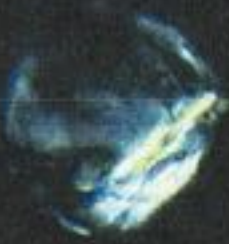
10 µm



M71537-001CSMP-003 Chrysotile
Perpendicular Dispersion
R.I. 1.552 to 1.564

10 μ m





M71537-001CSMP-003 Chrysotile
Crossed Polars

2.5 μ m



M71537-001CSMP-003 Chrysotile
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

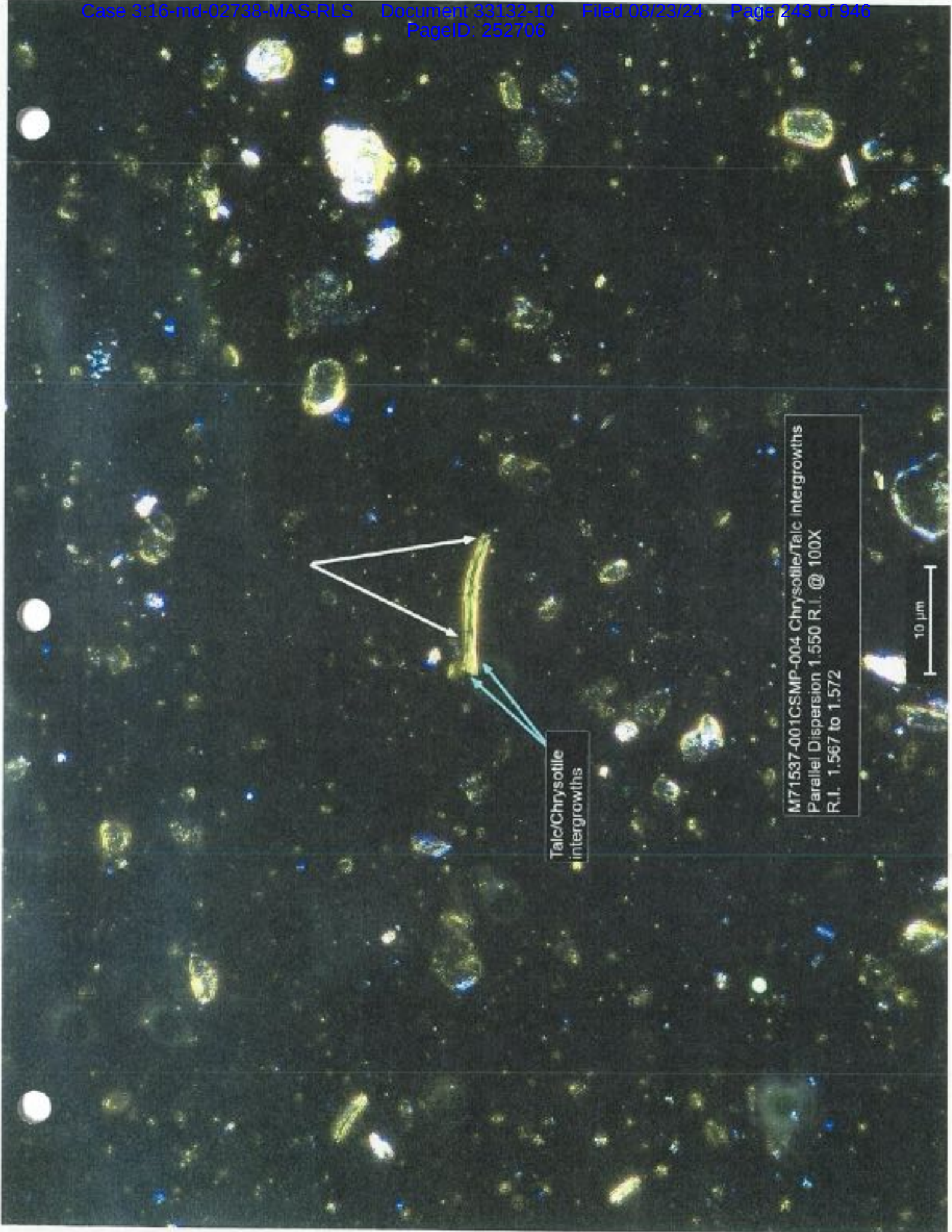
2.5 μ m



Talc/Chrysotile
intergrowths

M71537-001CSMP-004 Chrysotile/Talc intergrowths
Perpendicular Dispersion
R.I. 1.552 to 1.559

10 μm



Talc/Chrysotile
intergrowths

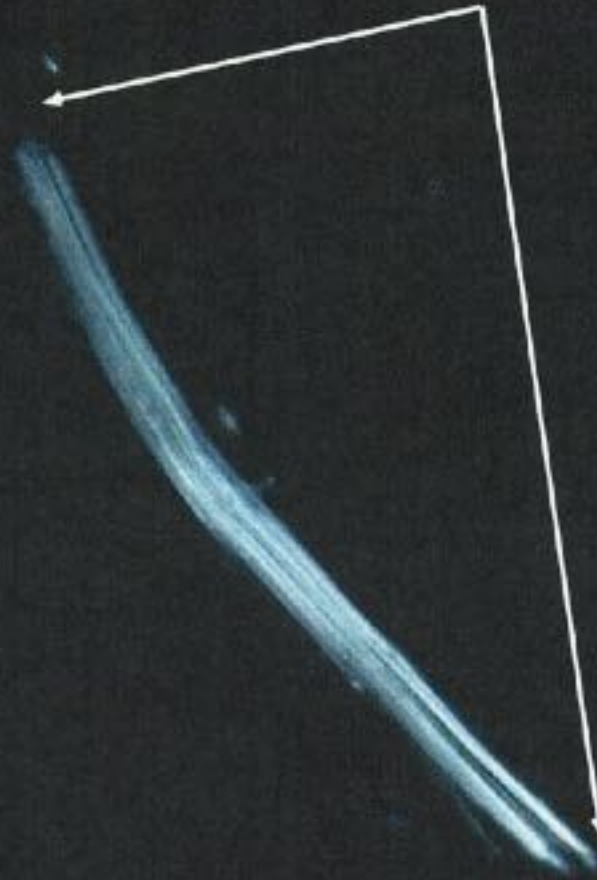
M71537-001CSMP-004 Chrysotile/Talc intergrowths
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.567 to 1.572

10 µm



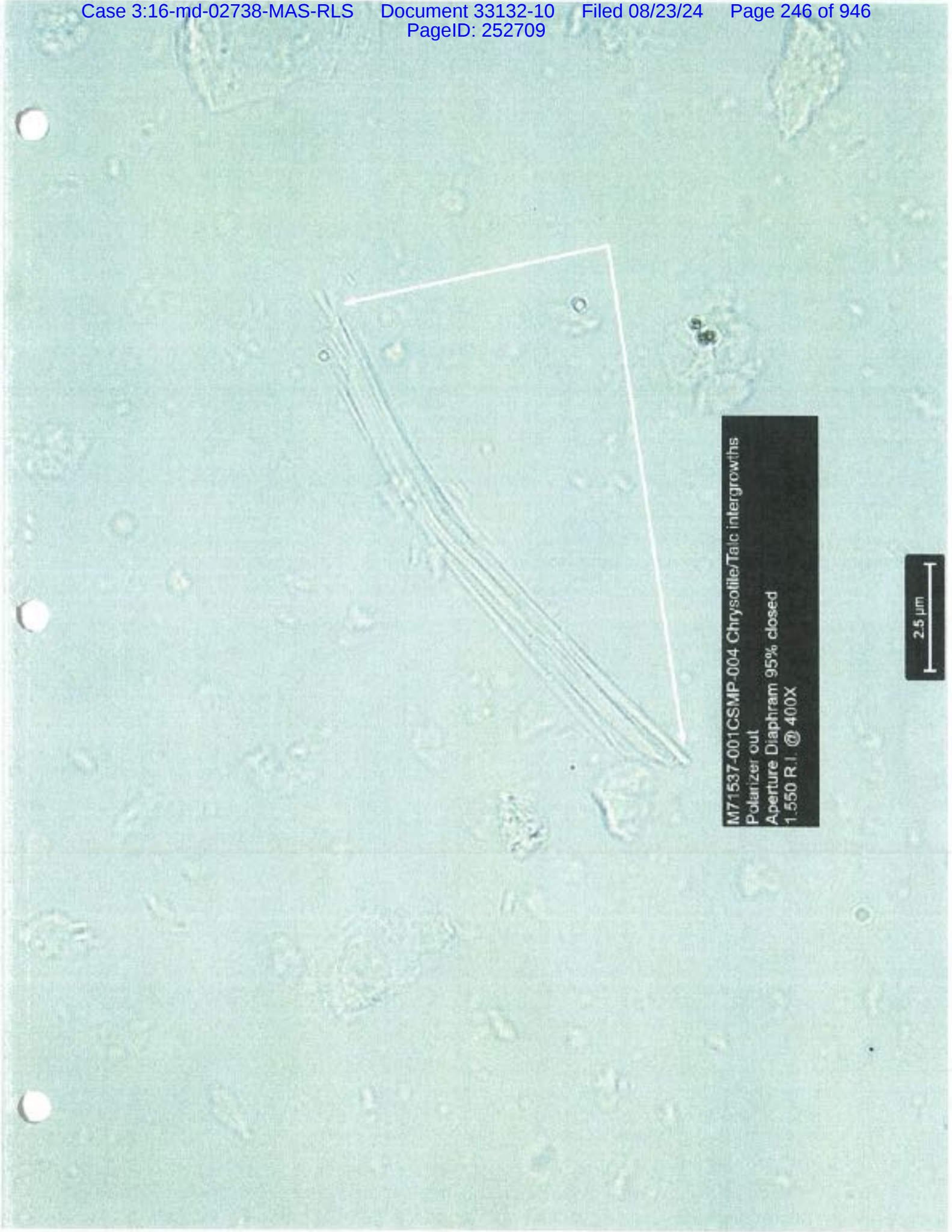
M71537-001CSMP-004 Chrysotile/Talc intergrowths
Elongation @ 400X

2.5 μ m



M71537-001CSMP-004 Chrysotile/Talc intergrowths
Crossed Polars

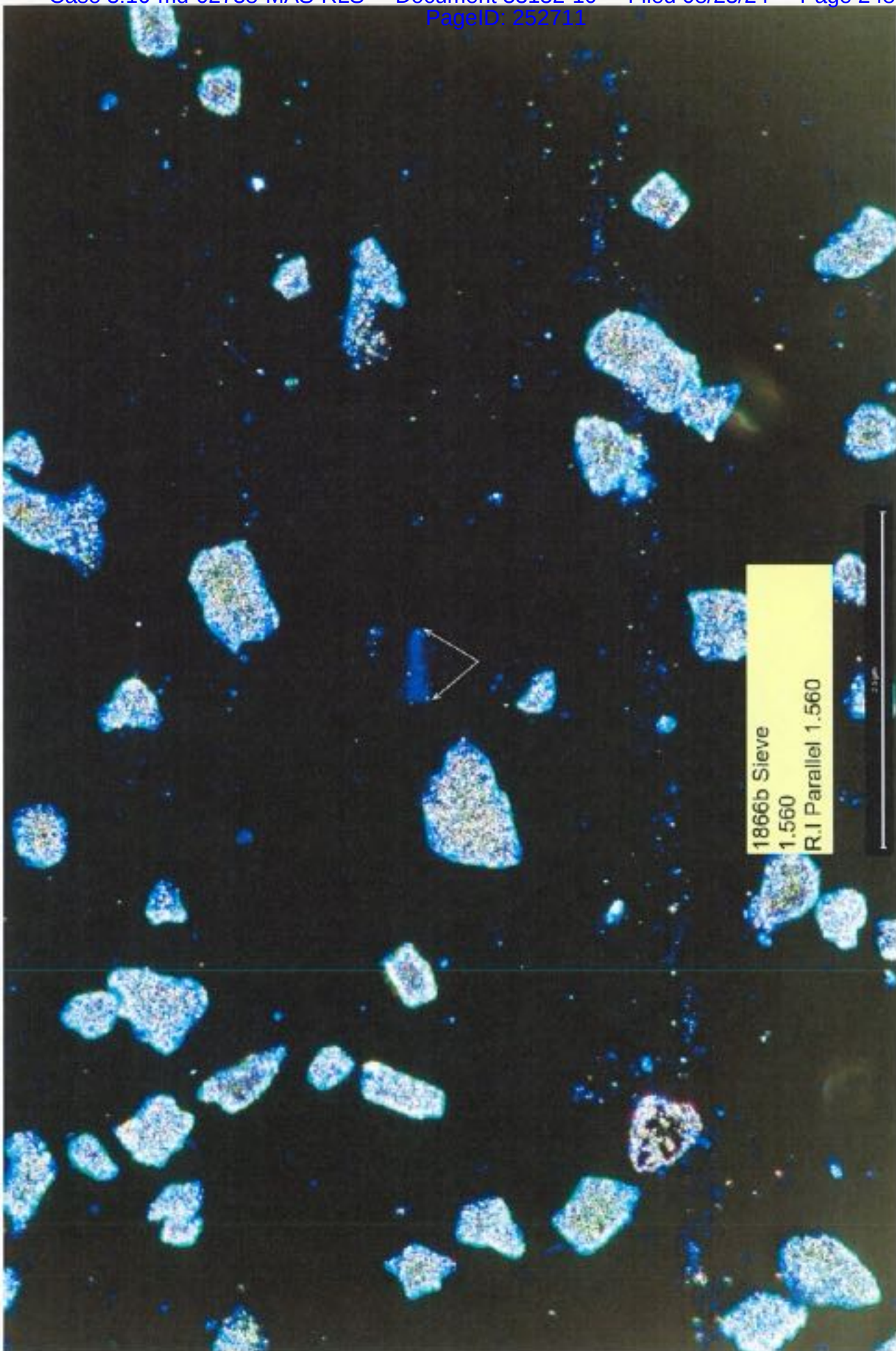
2.5 μ m

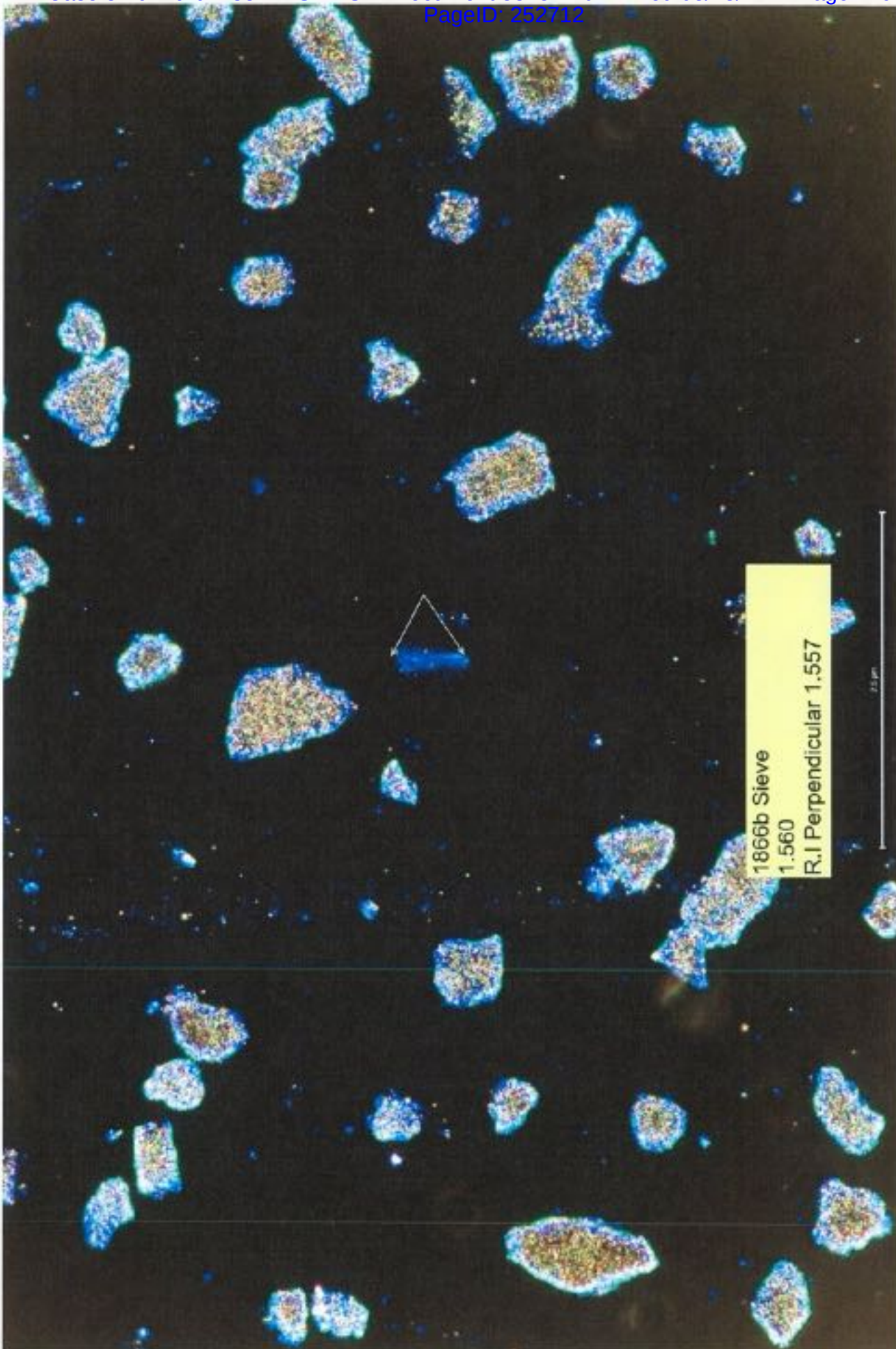


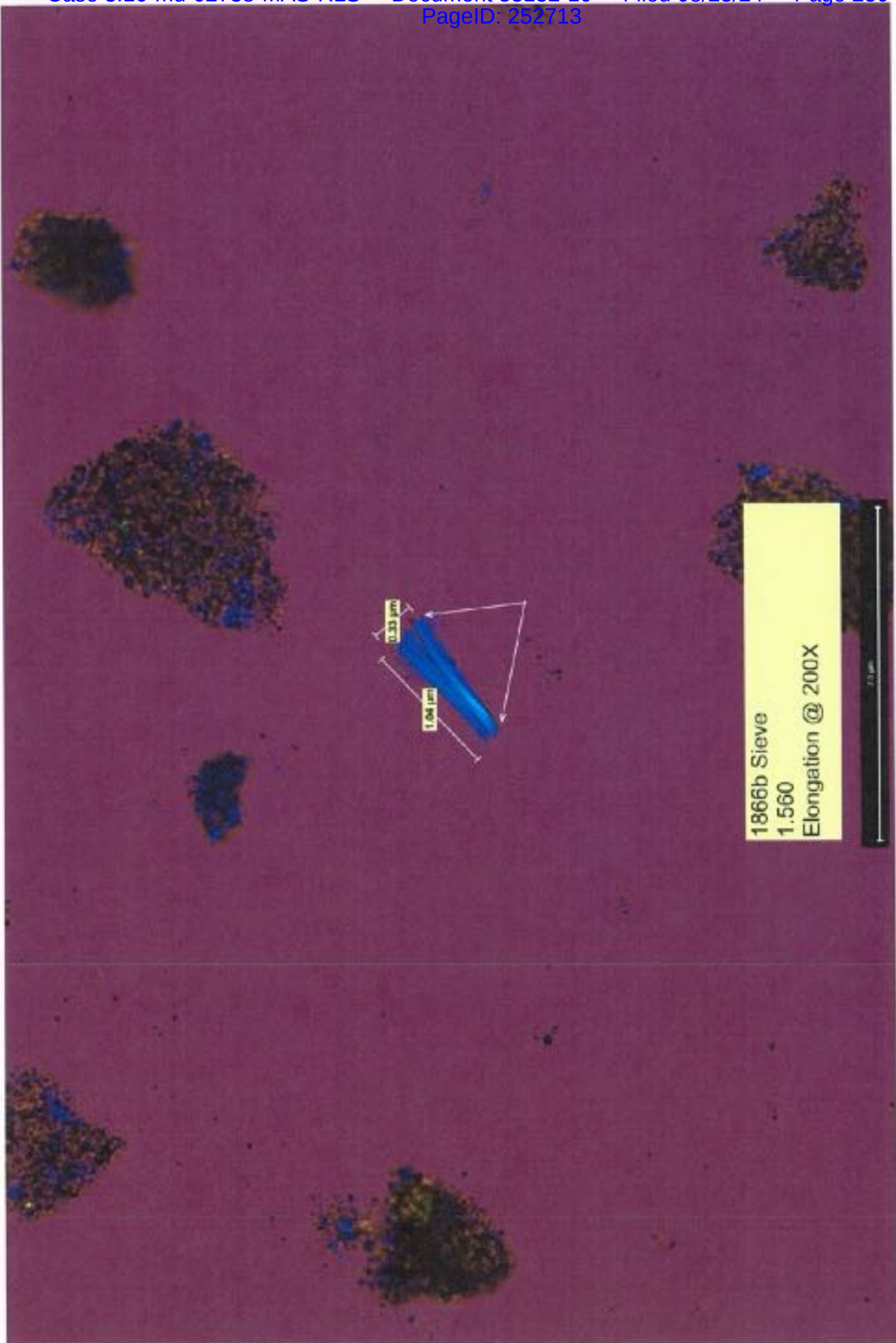
M71537-001CSMP-004 Chrysotile/Talc intergrowths
Polarizer out
Aperture Diaphragm 95% closed
1.550 R.I. @ 400X

2.5 μm

Section 7



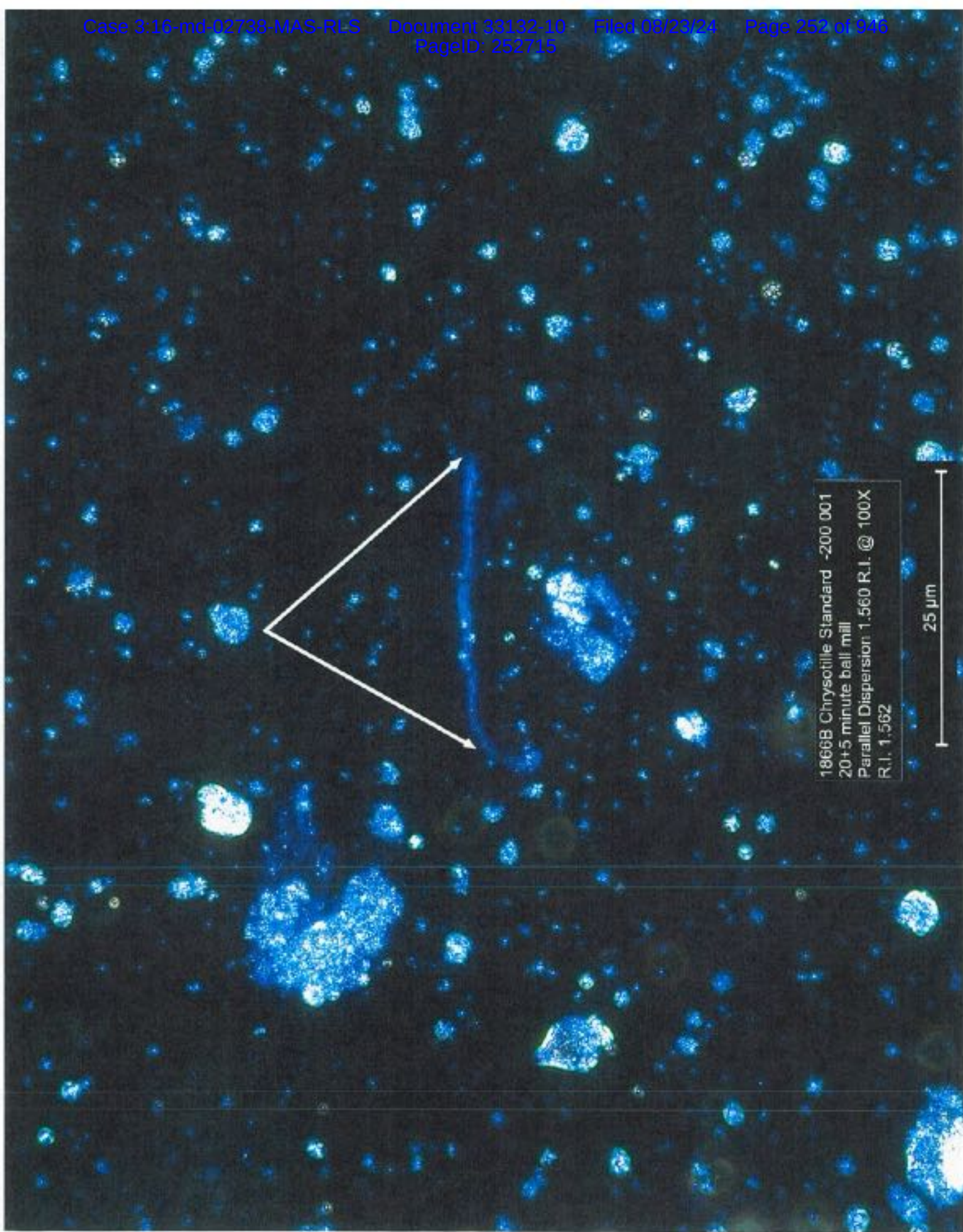


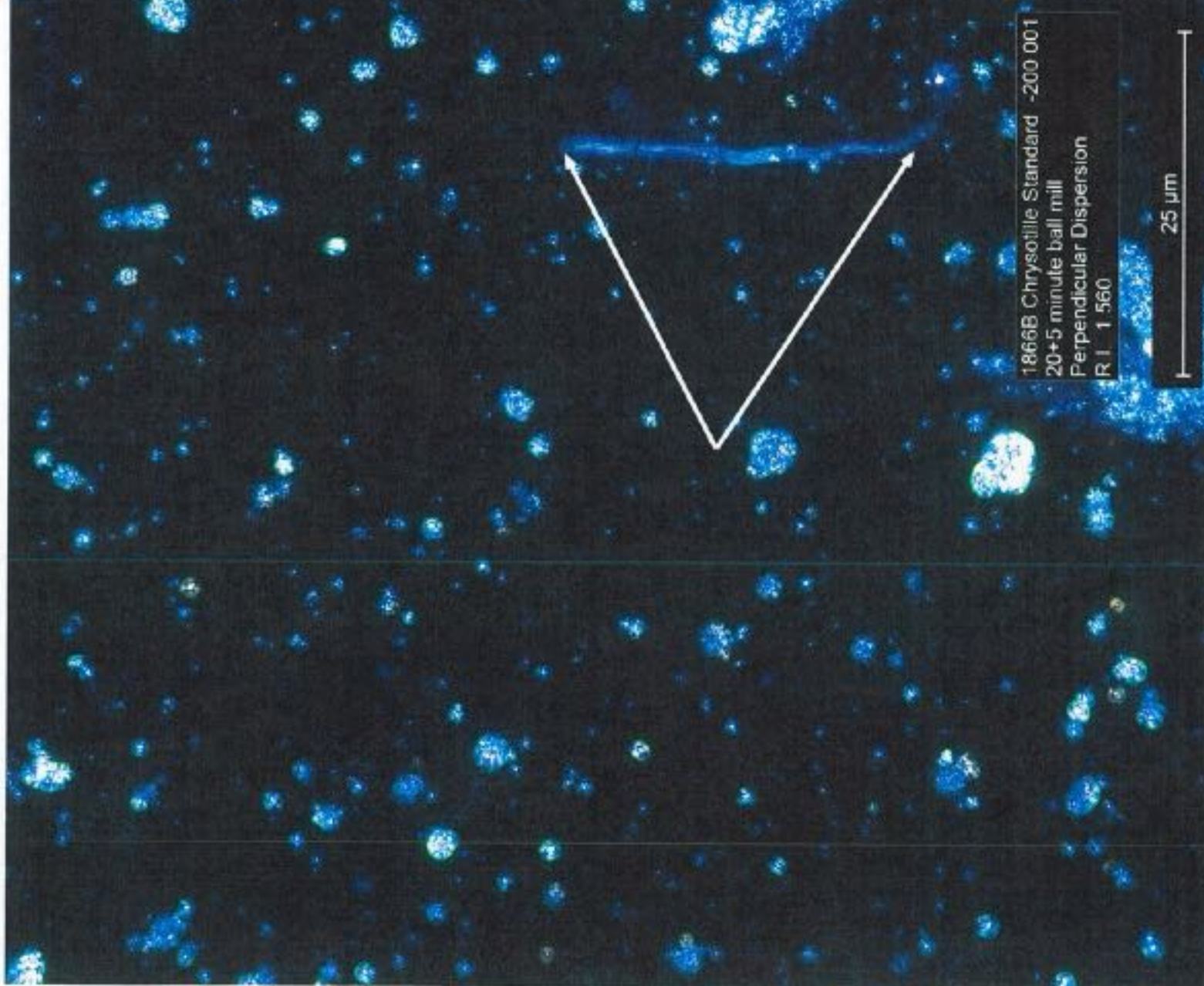


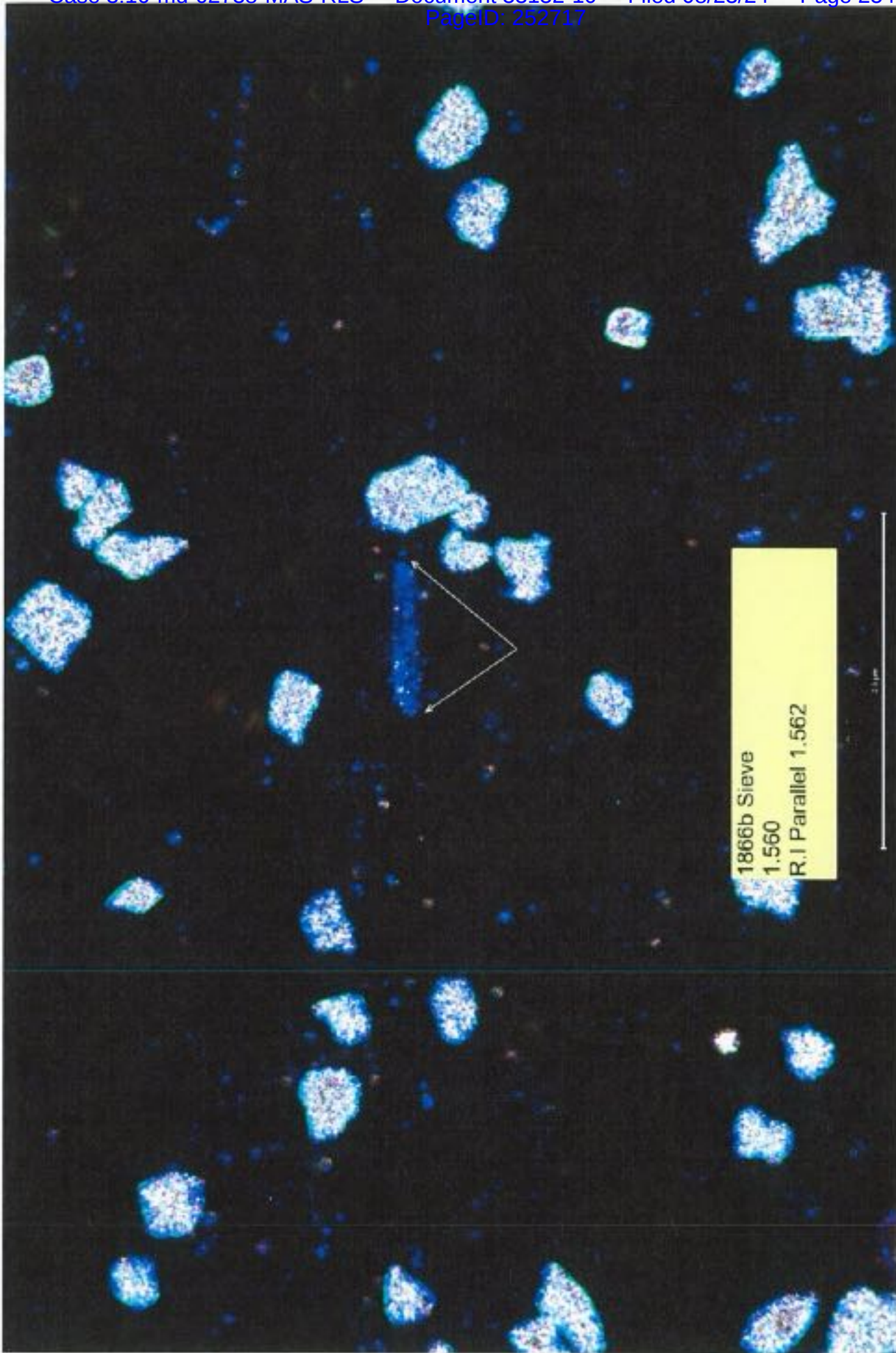


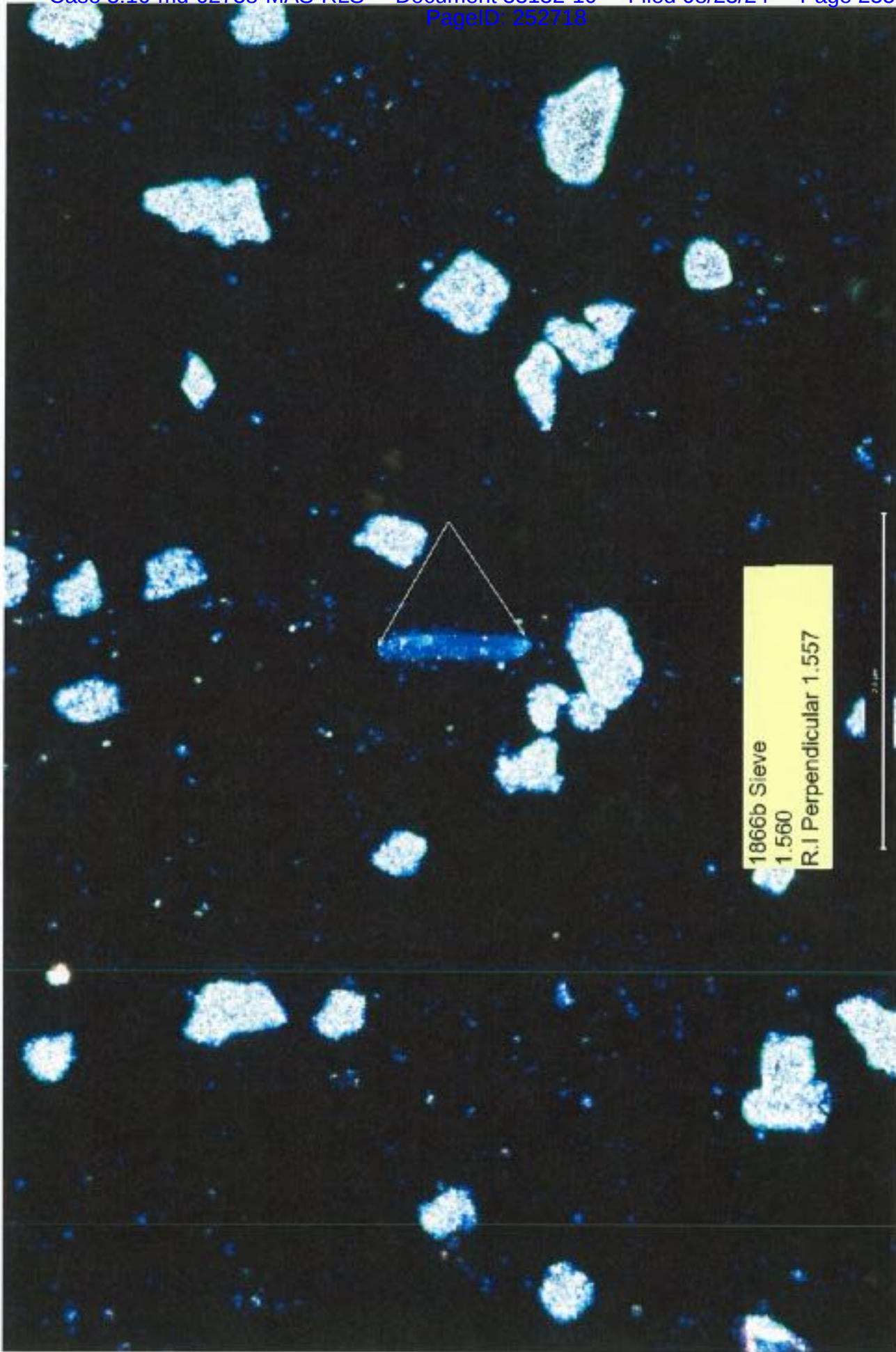
1866b Sieve
1.560
Crossed Polars @ 200X

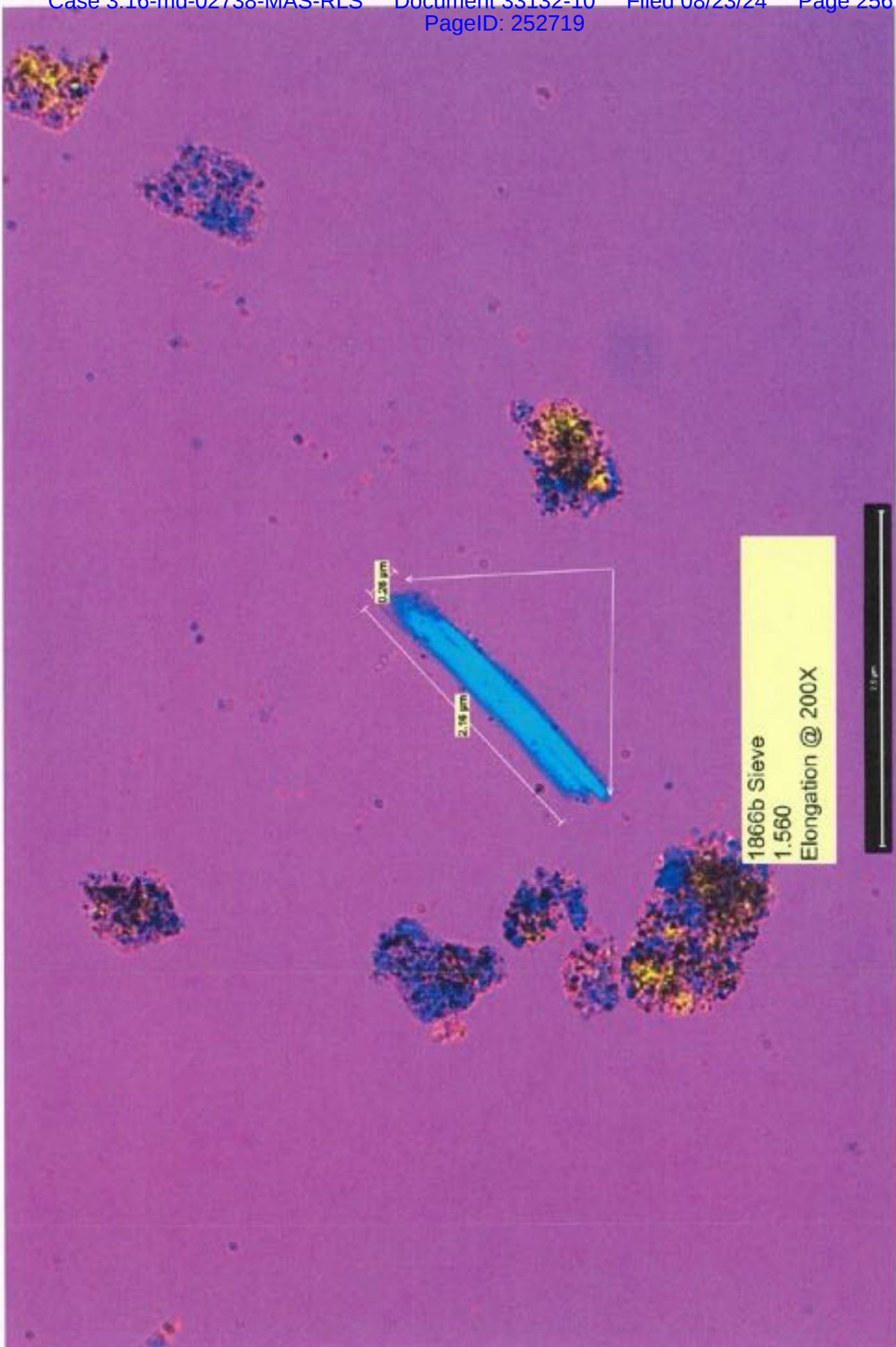


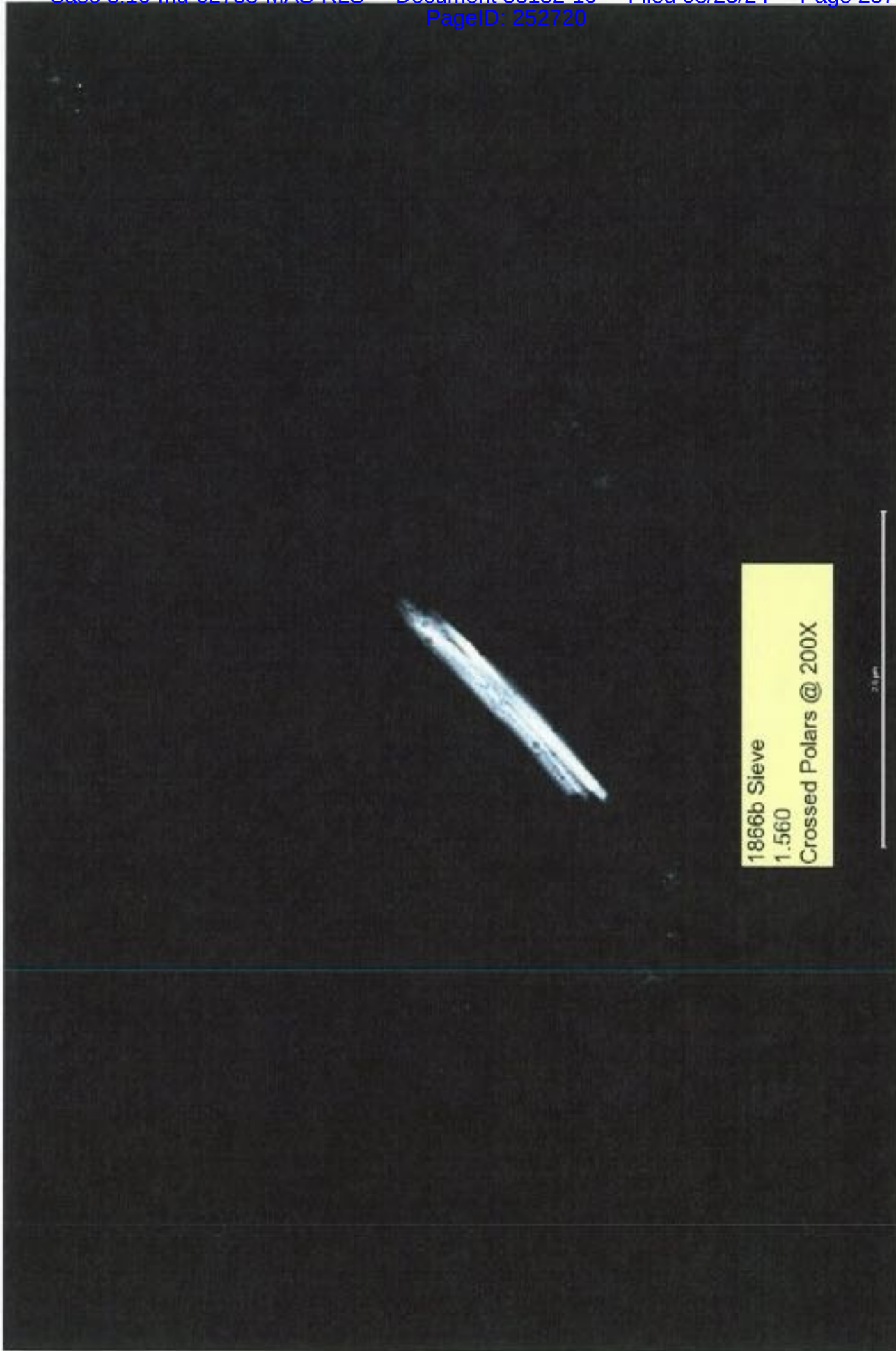






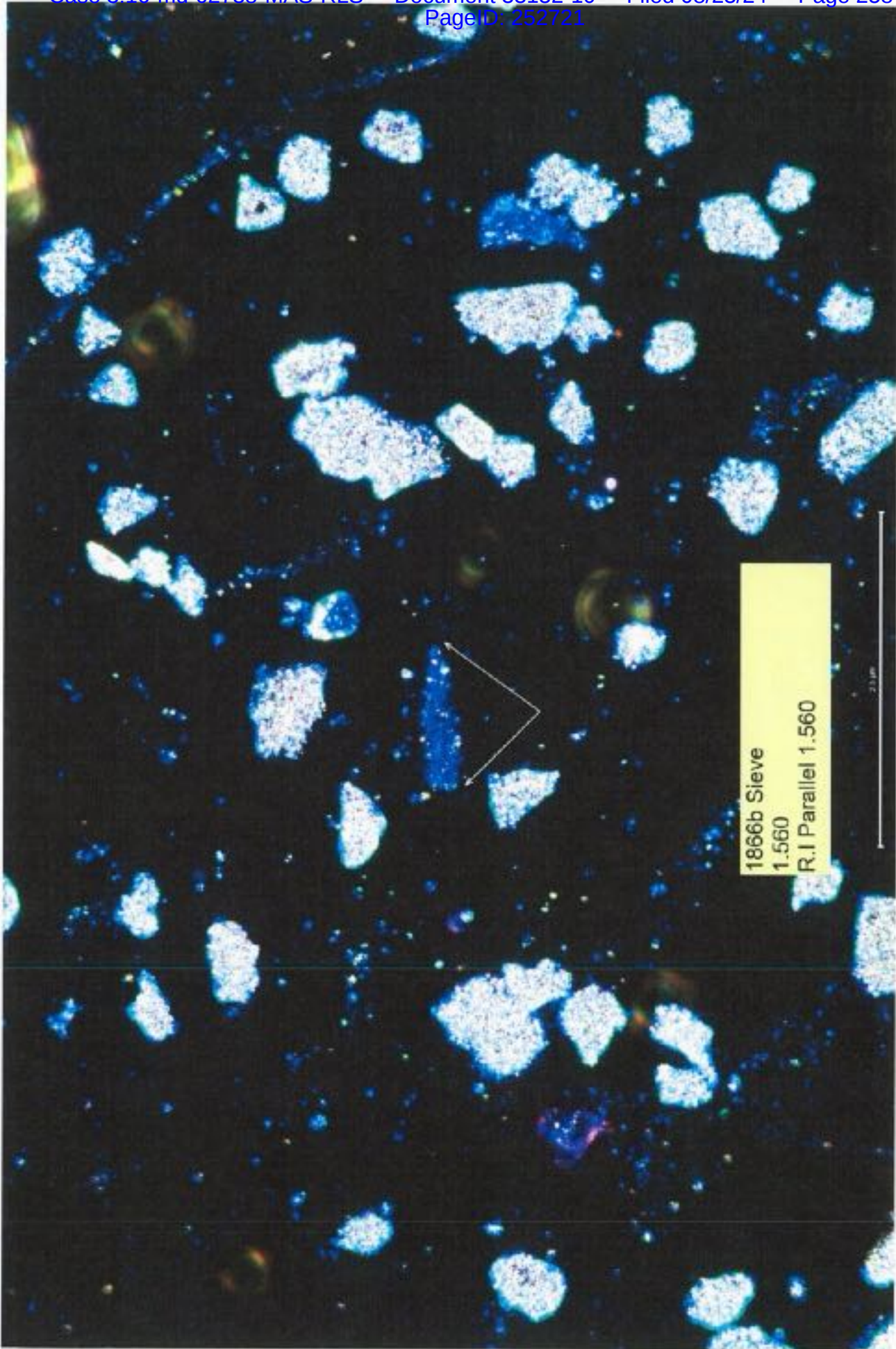


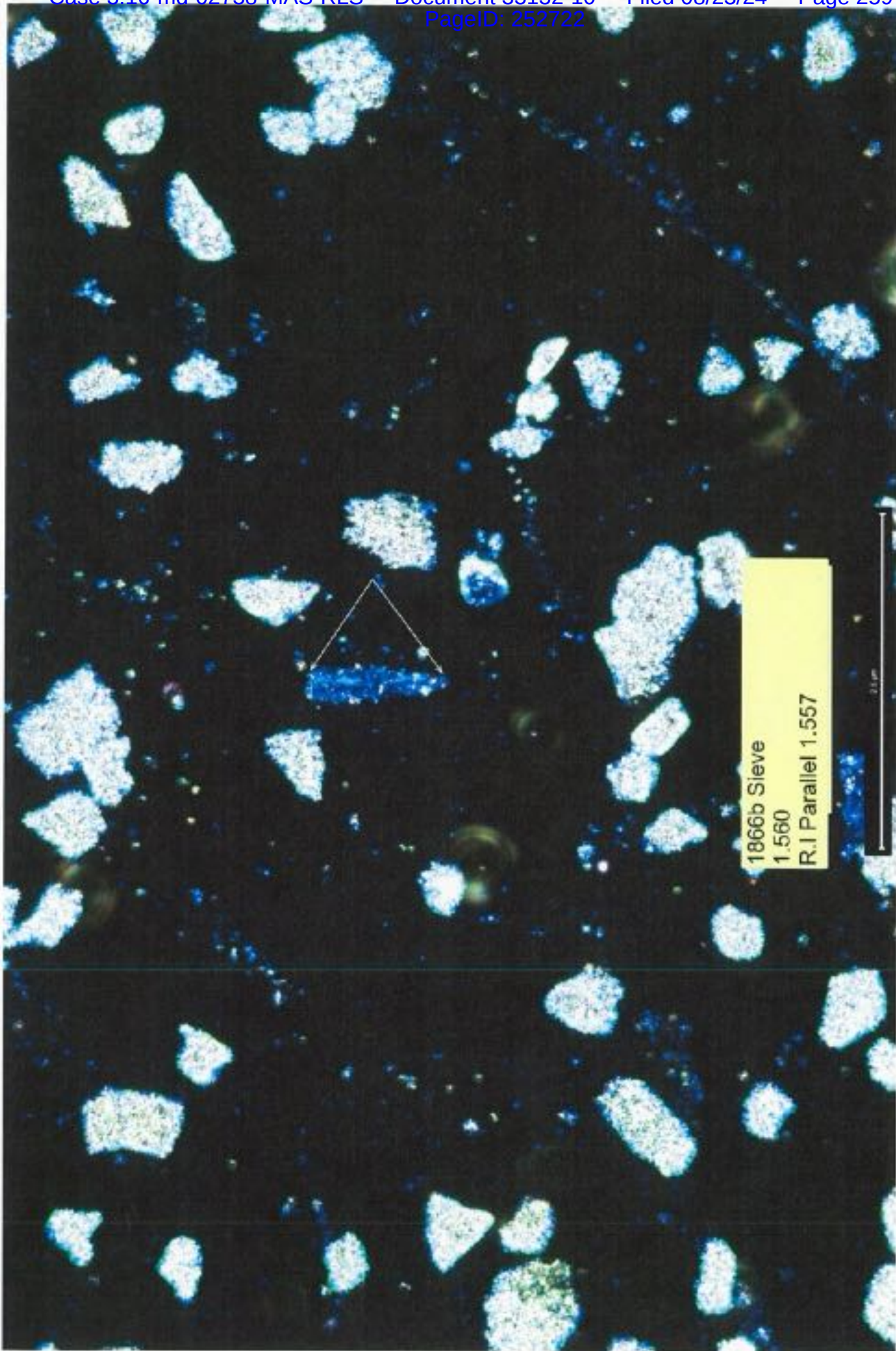


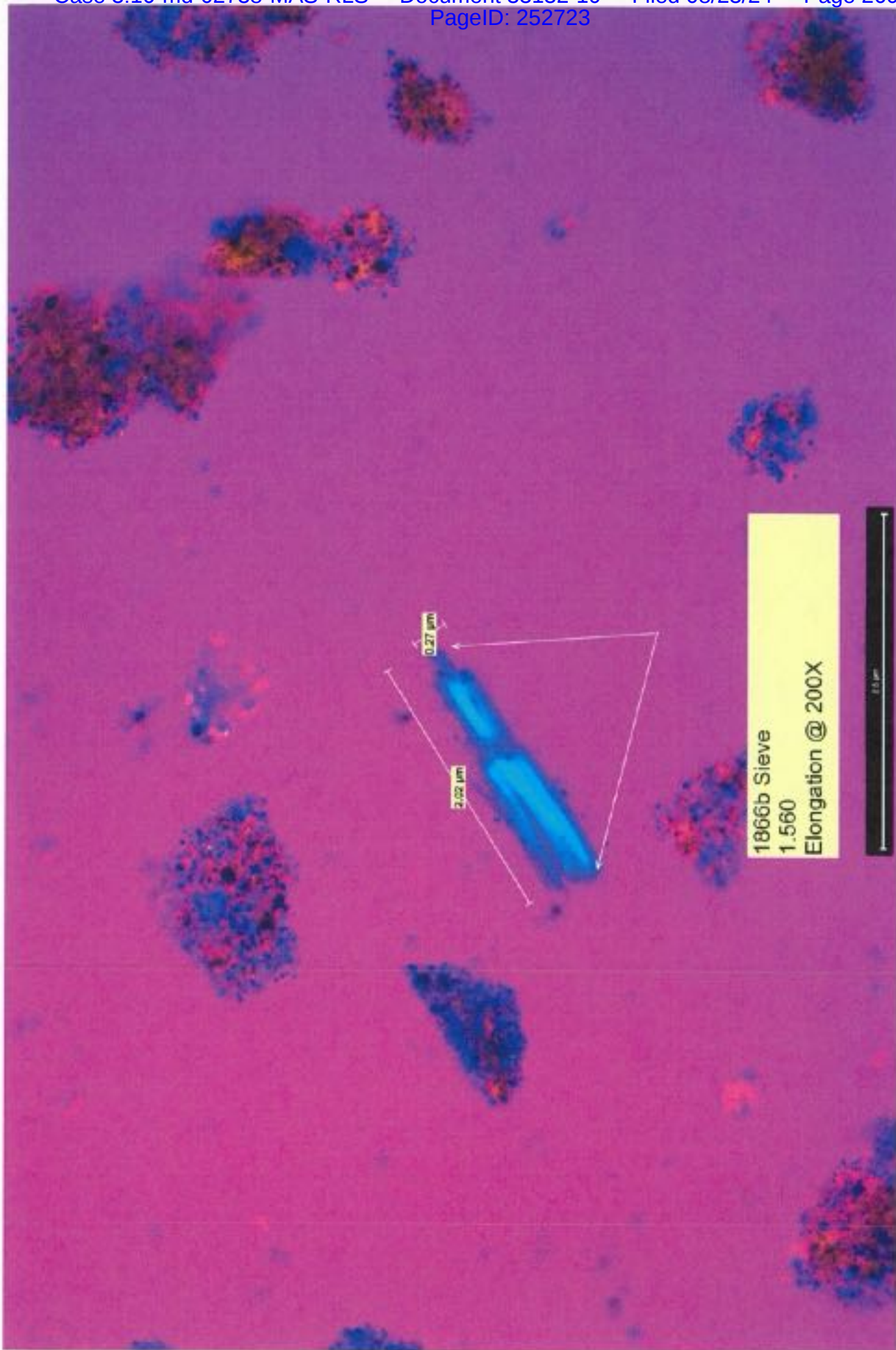


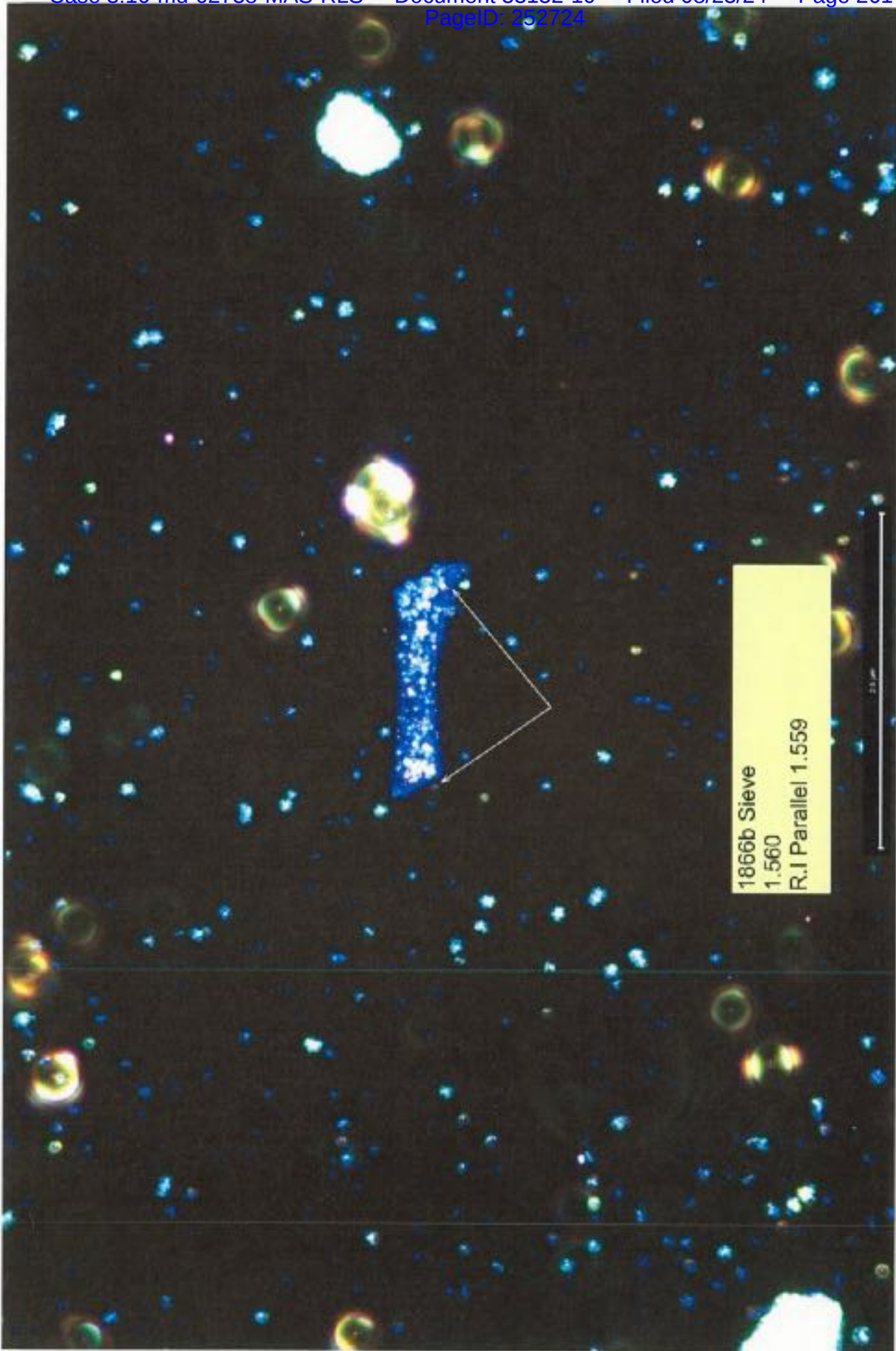
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1.560
Crossed Polars @ 200X

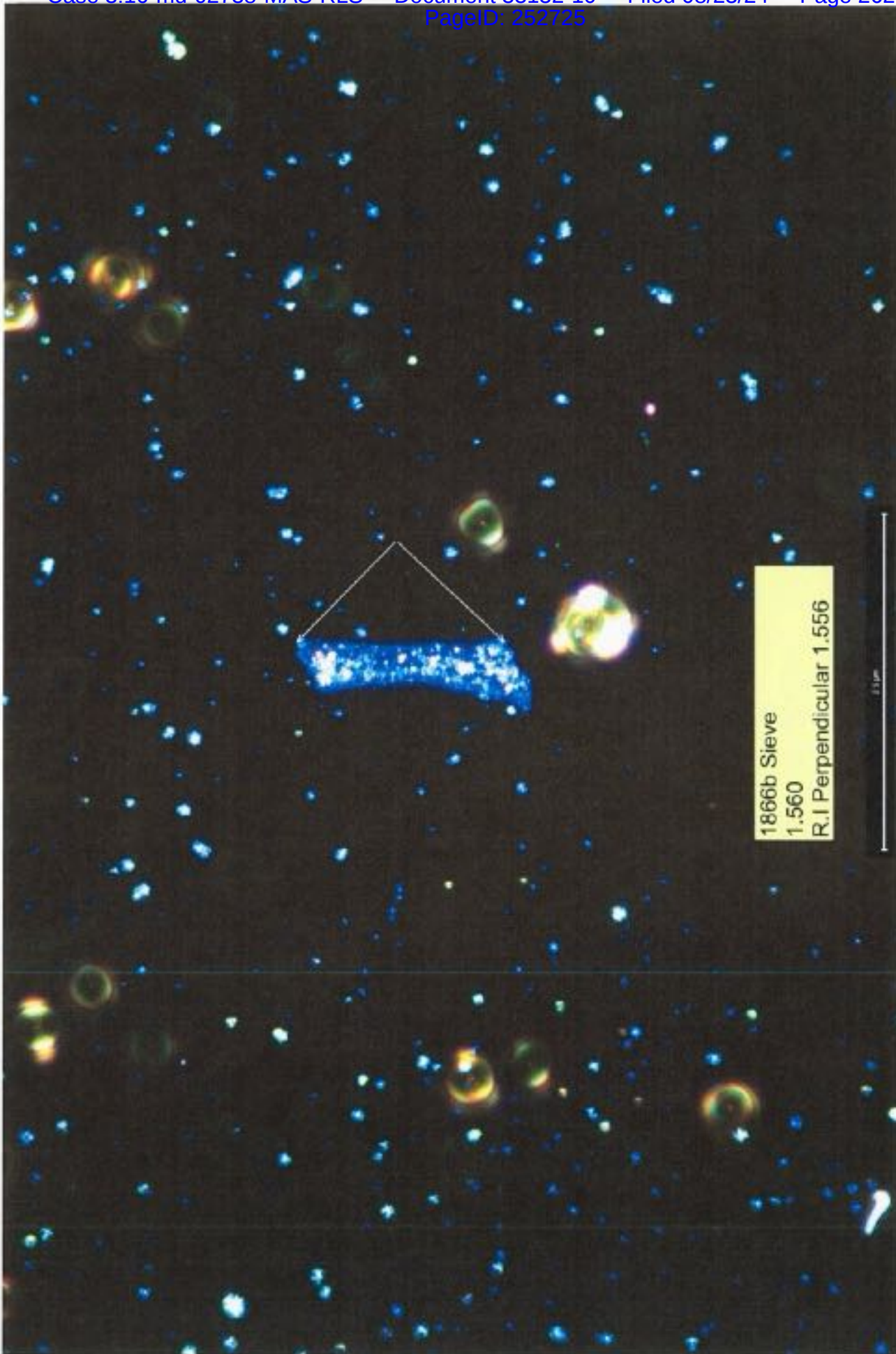
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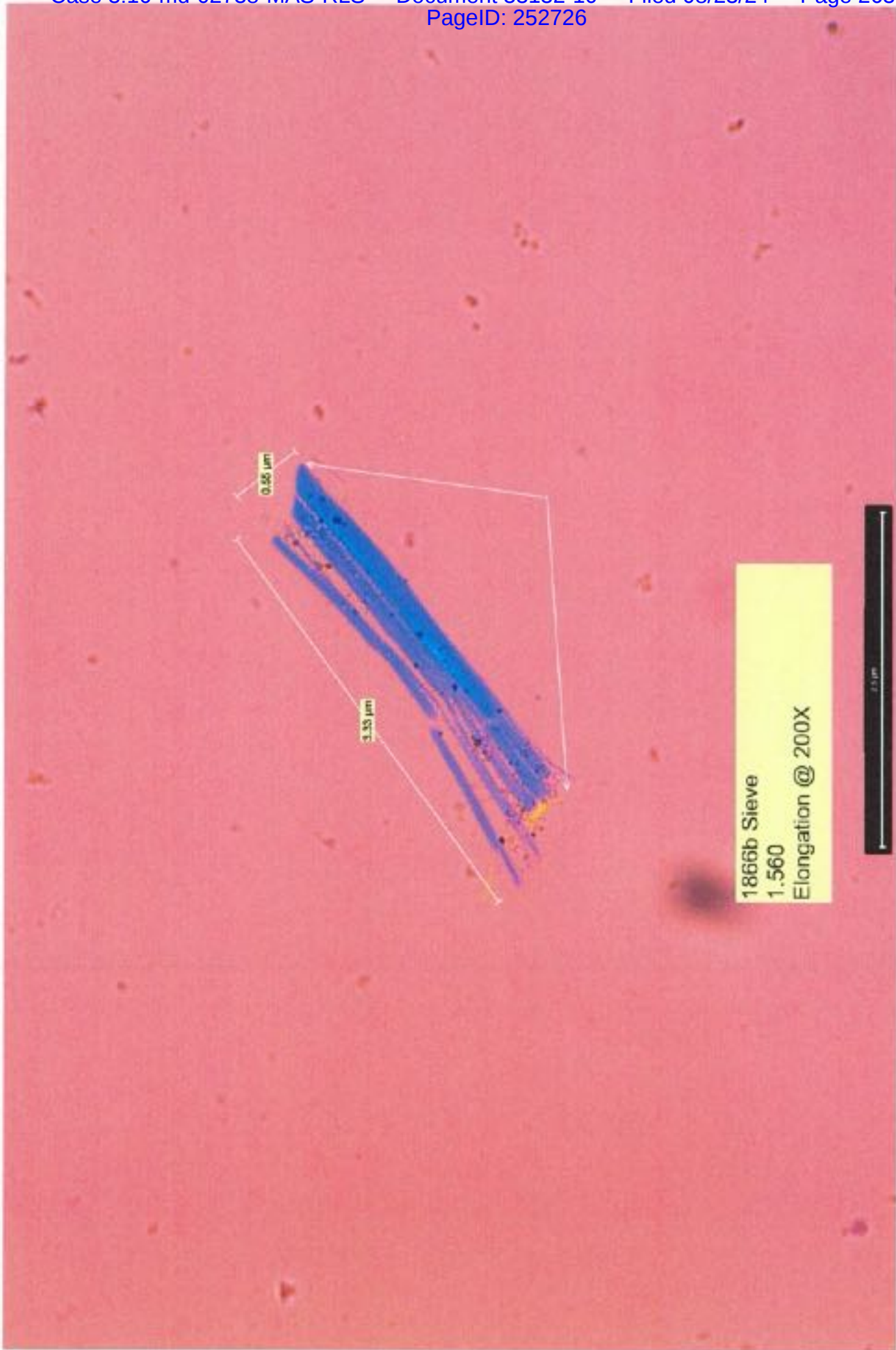


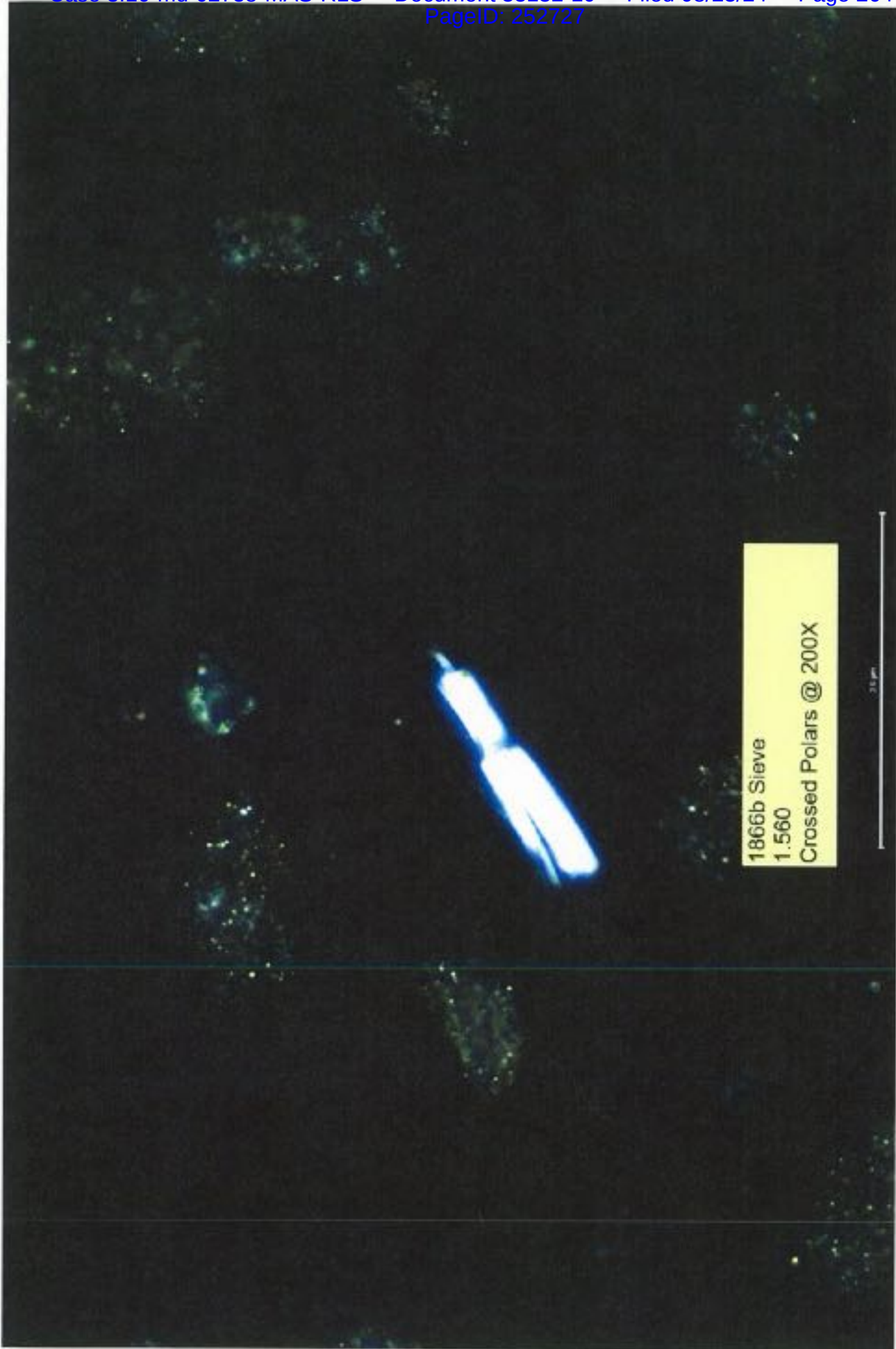


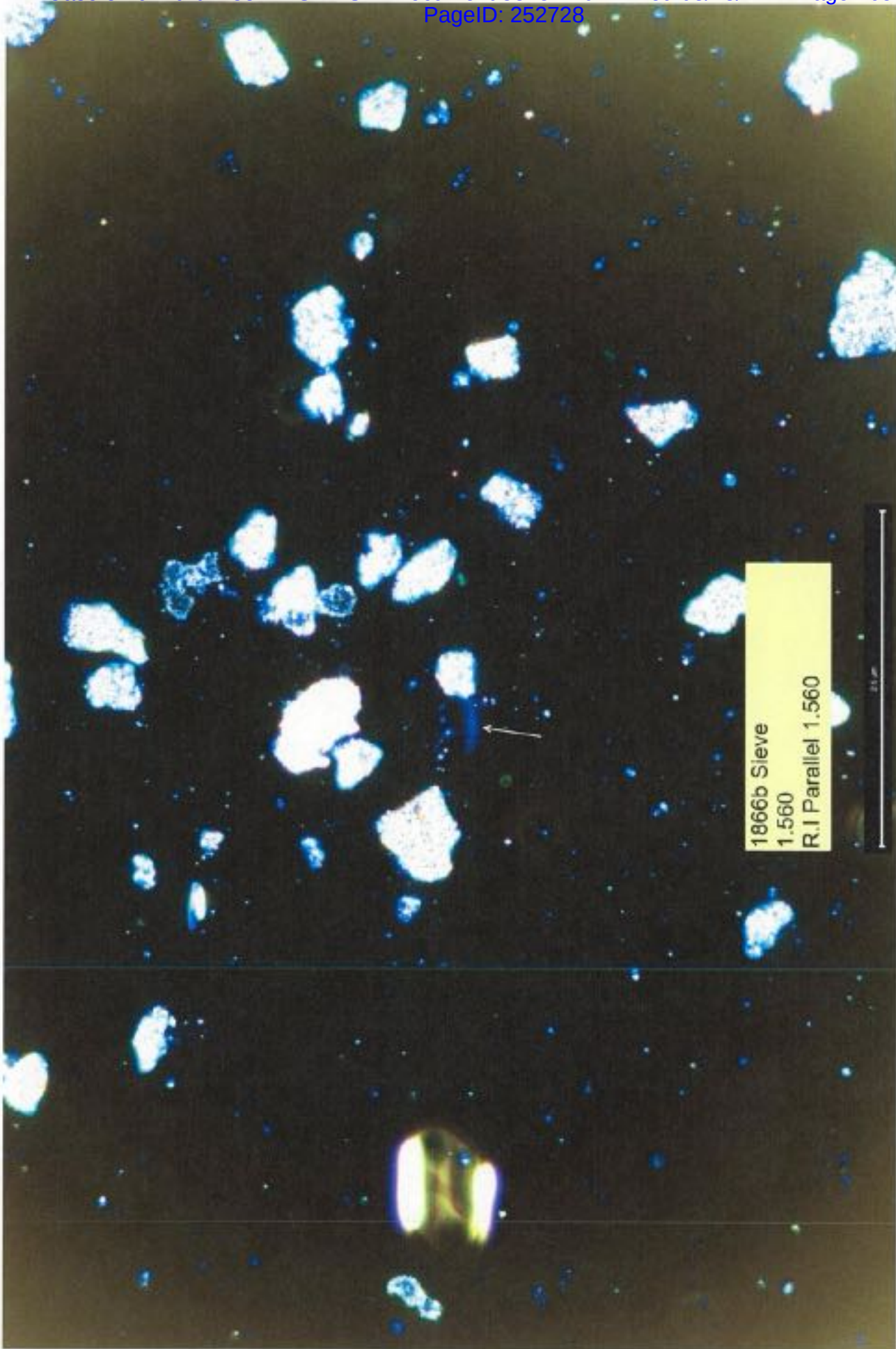


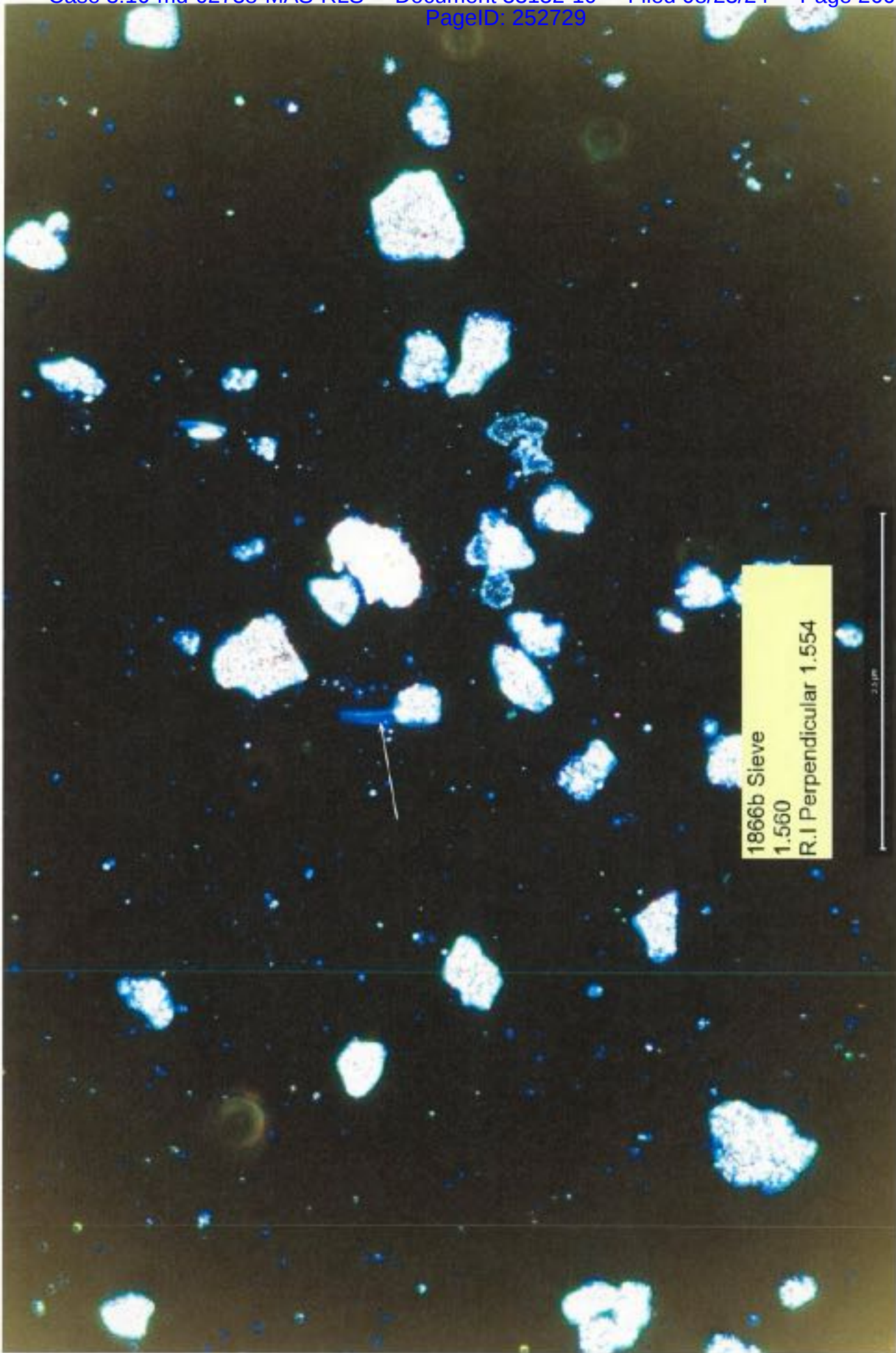










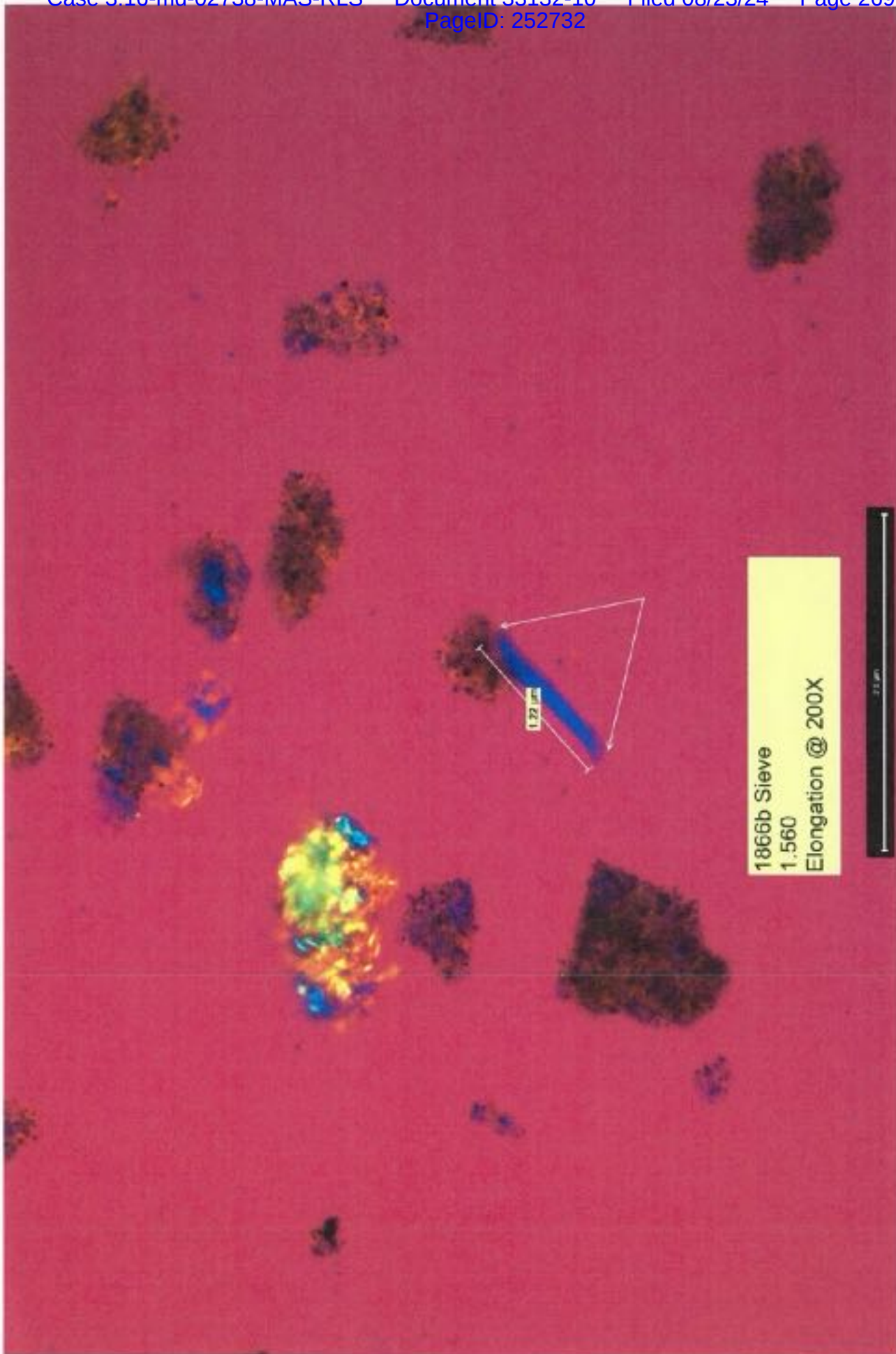




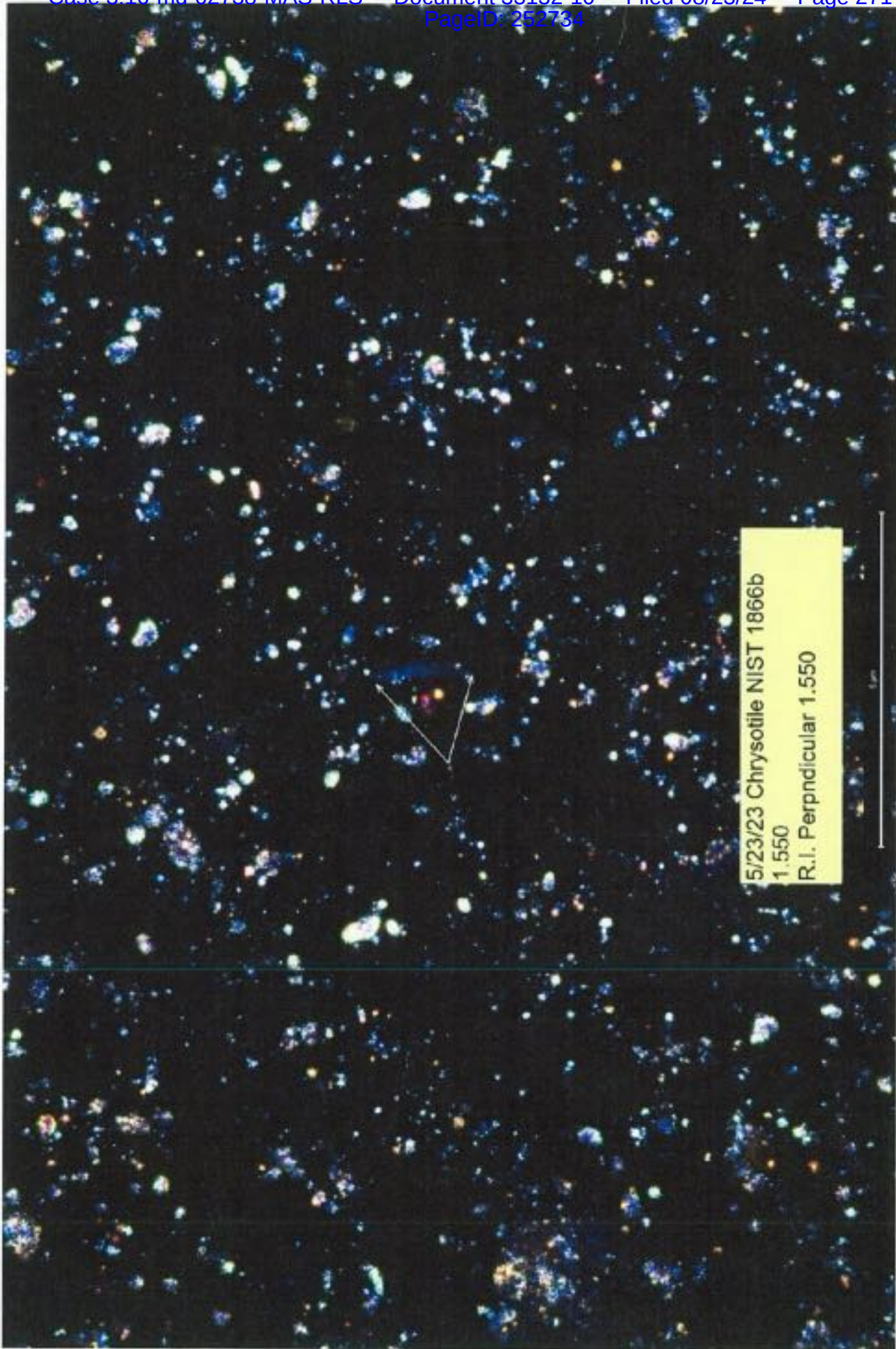


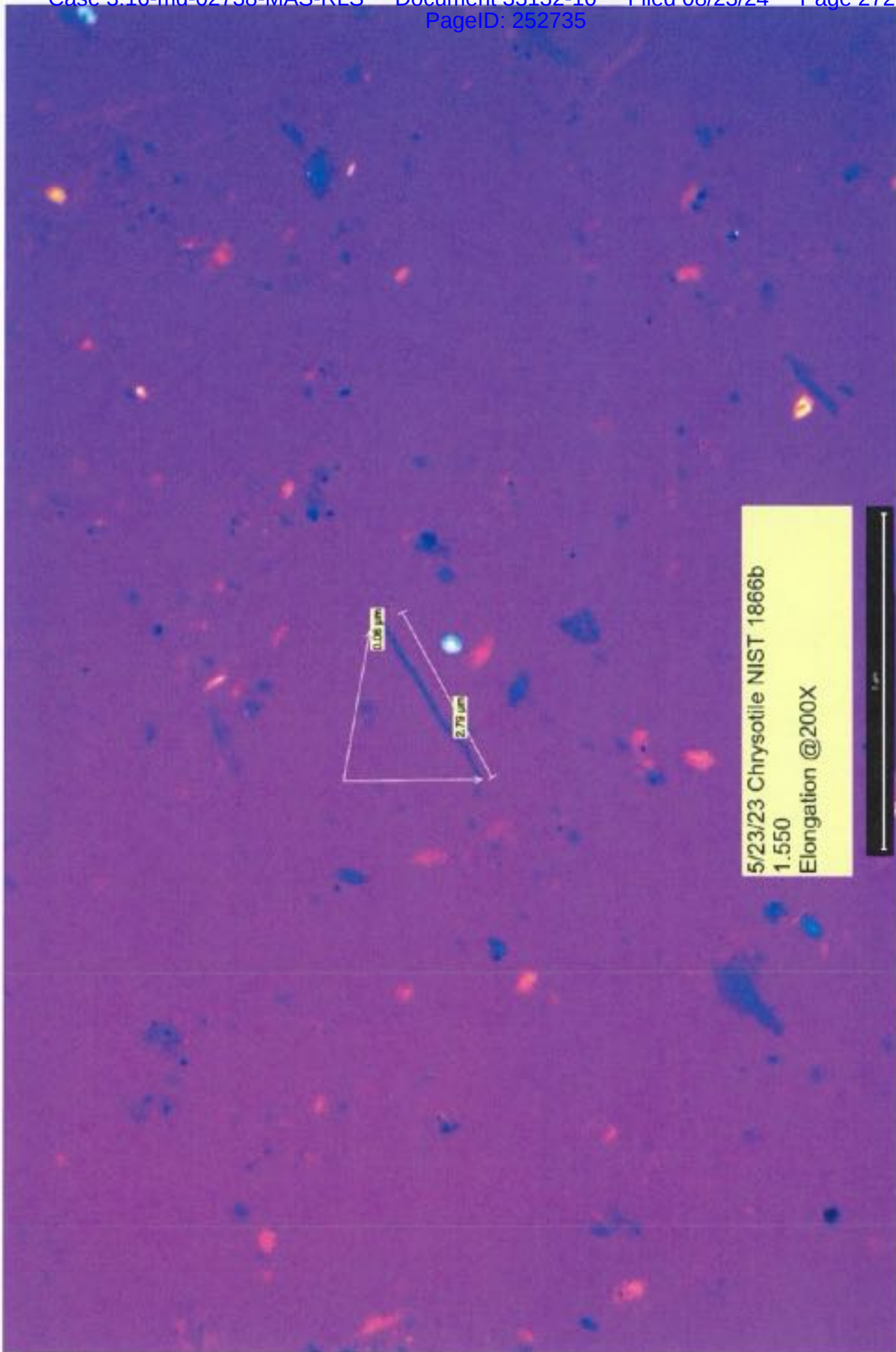
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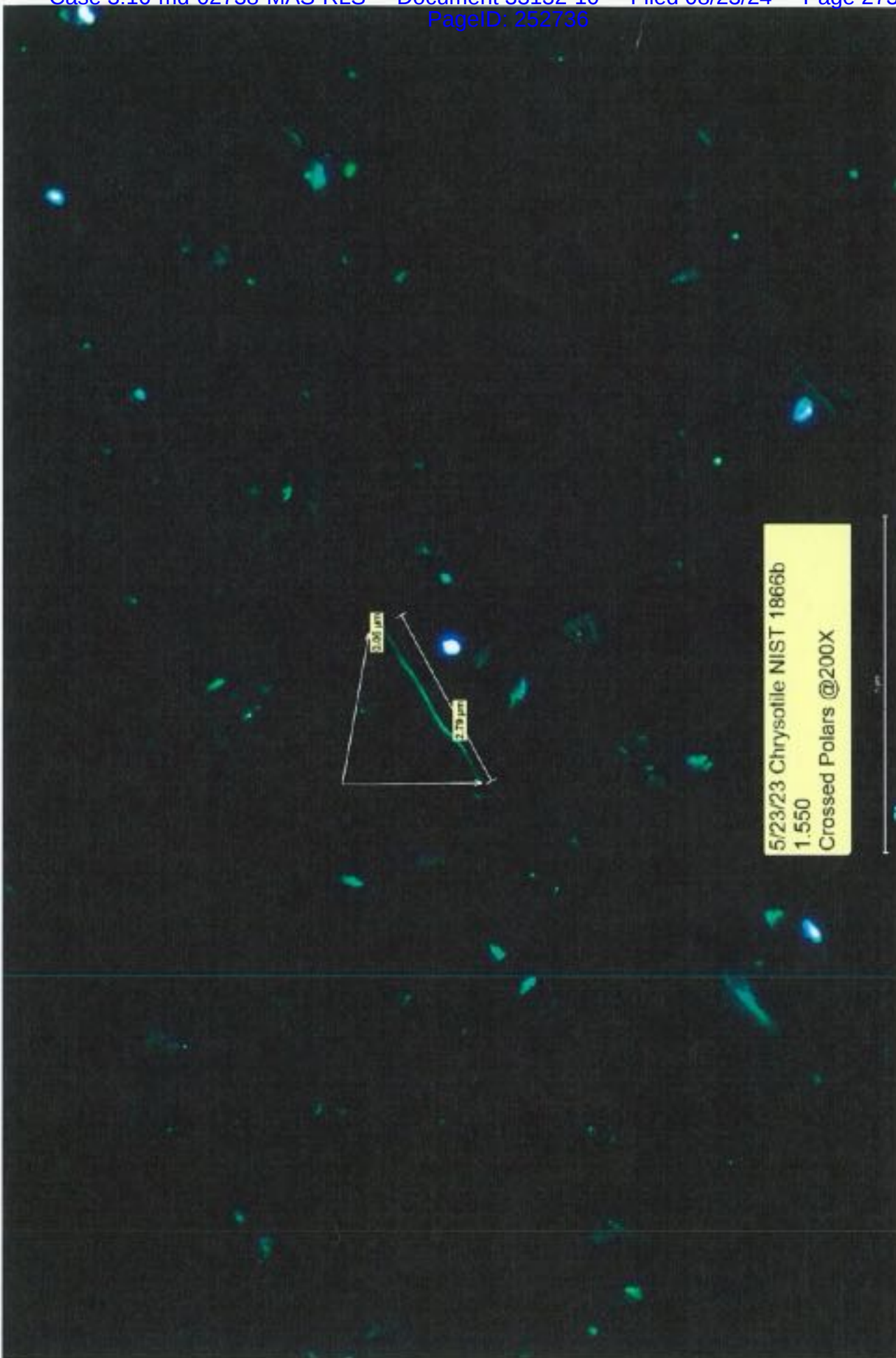




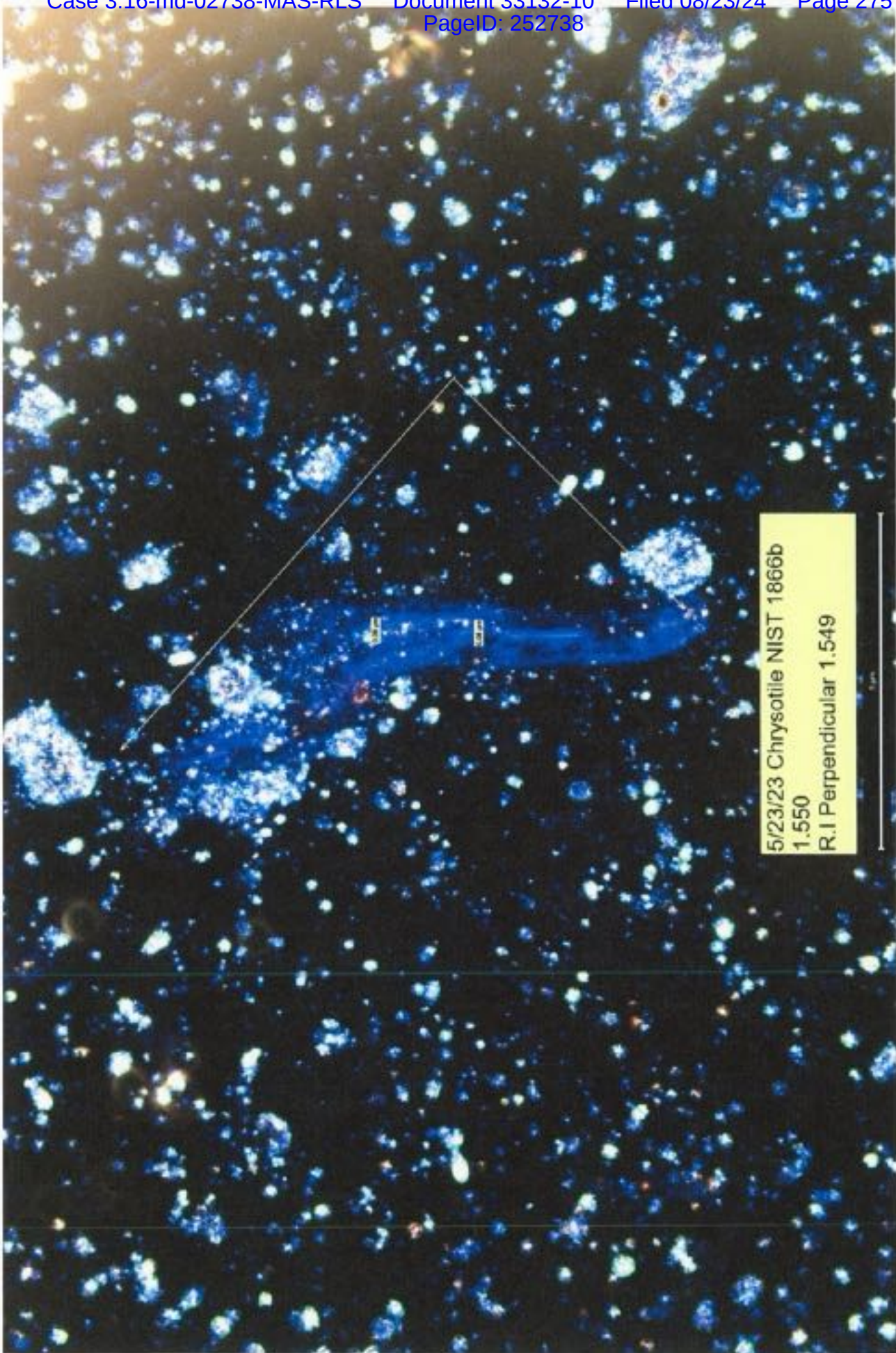


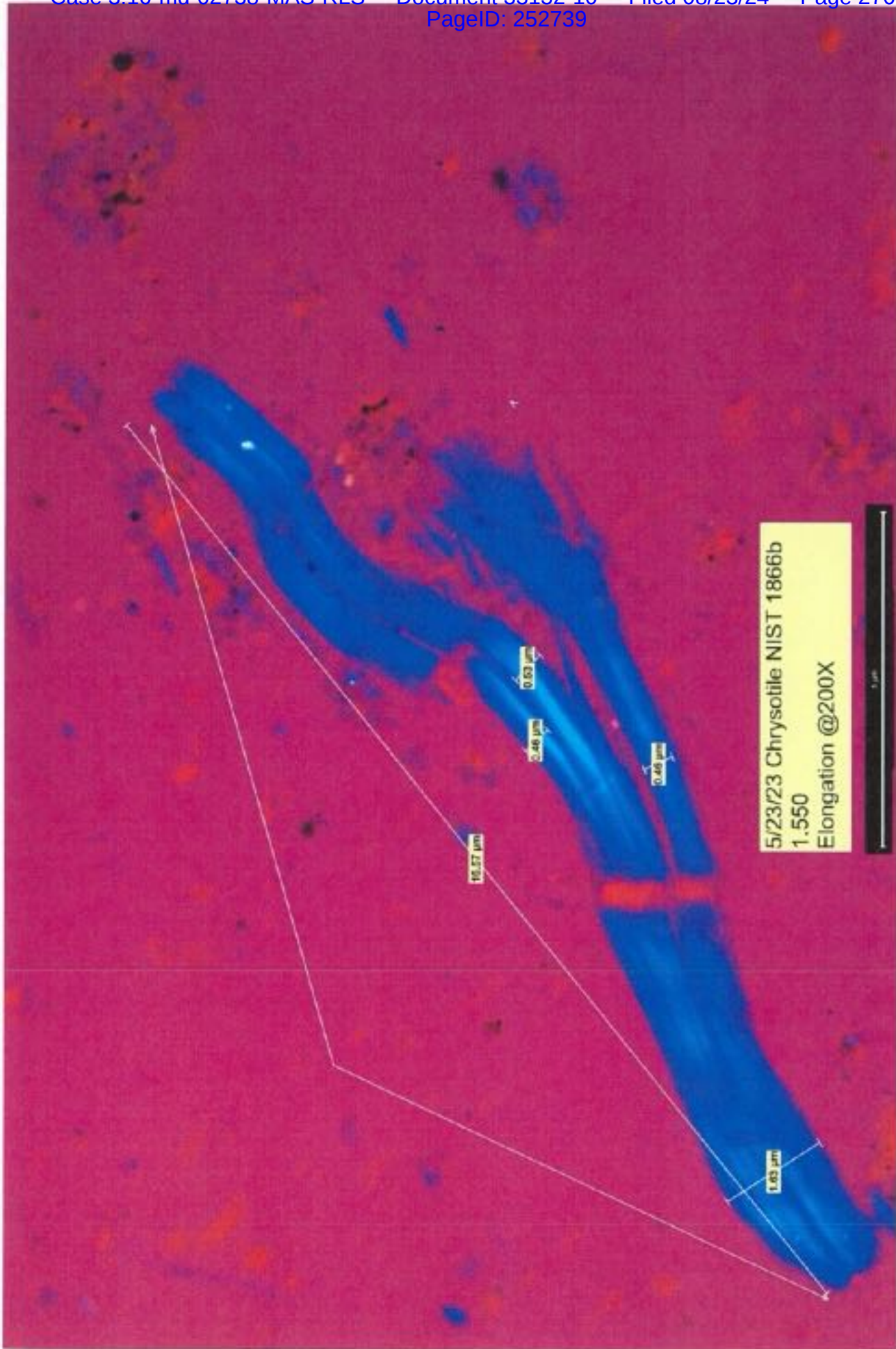


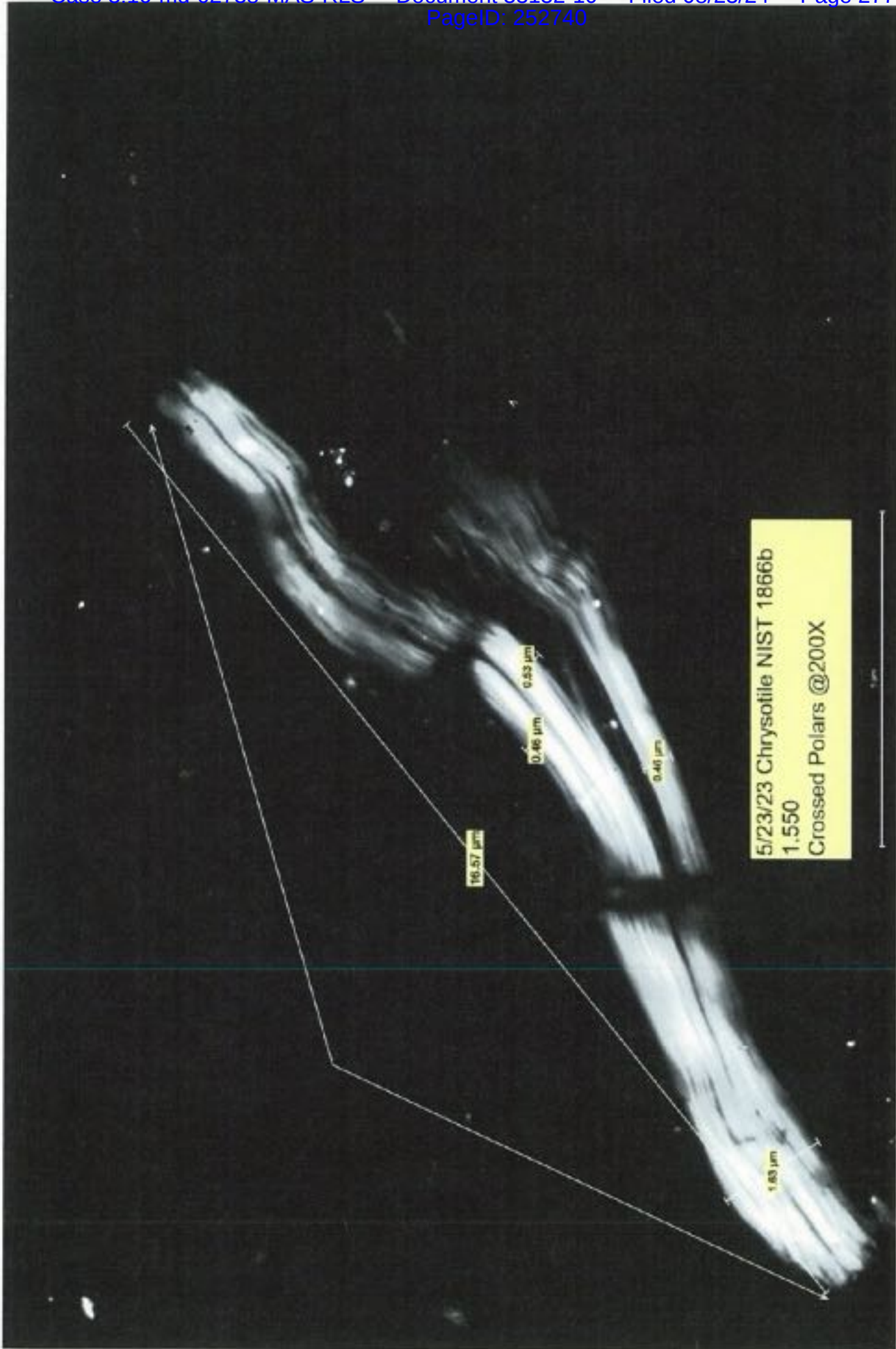


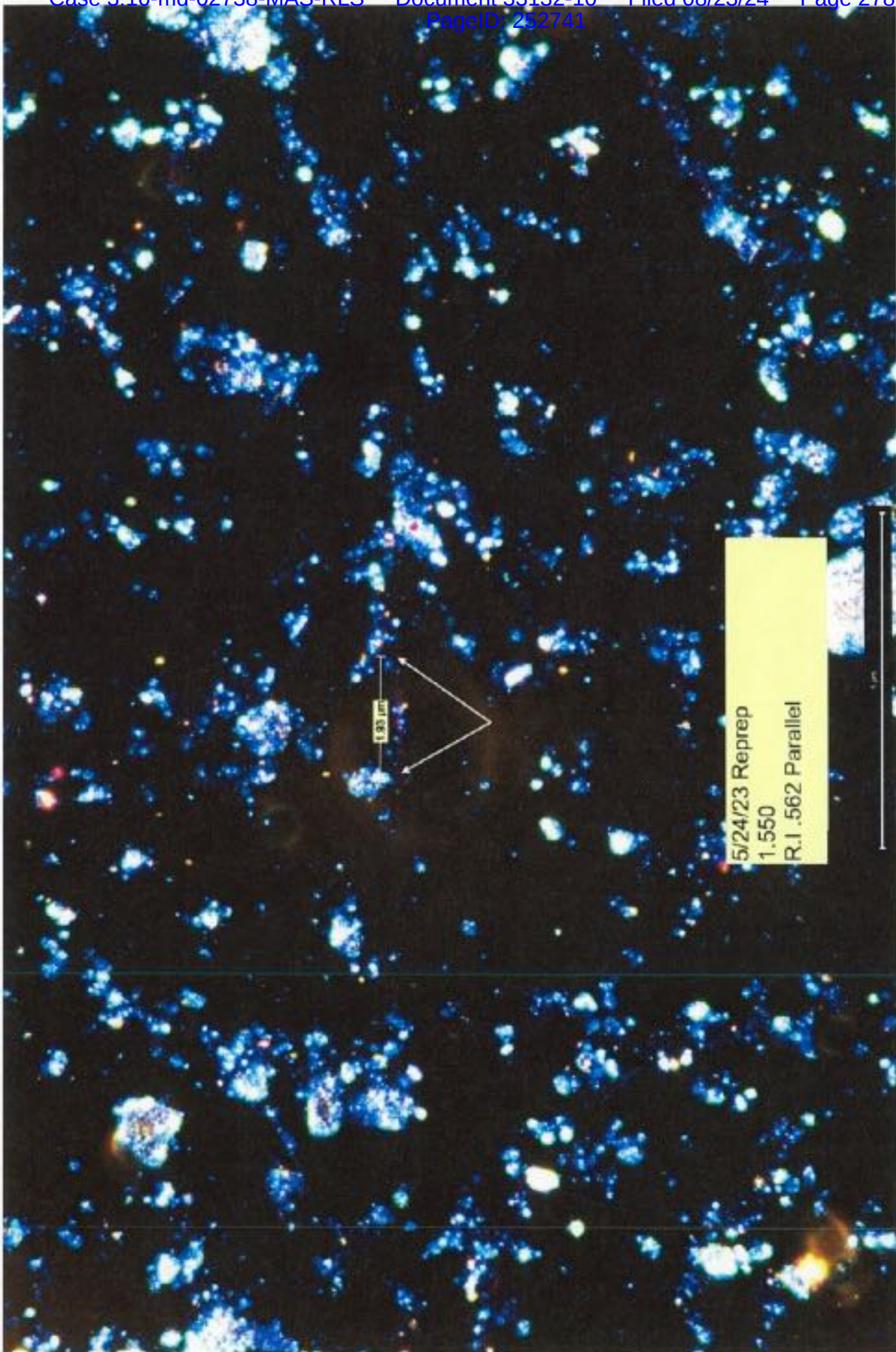


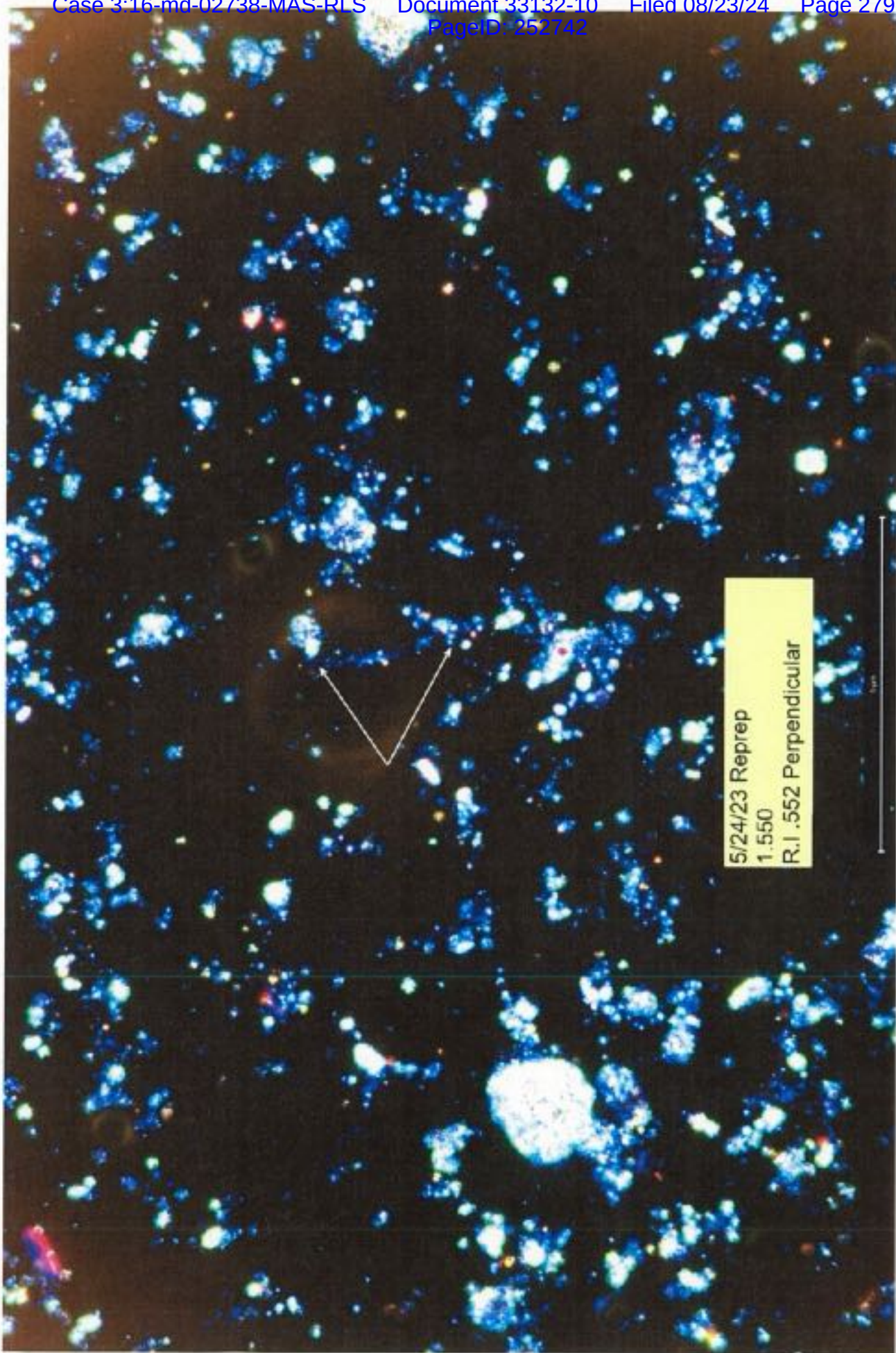




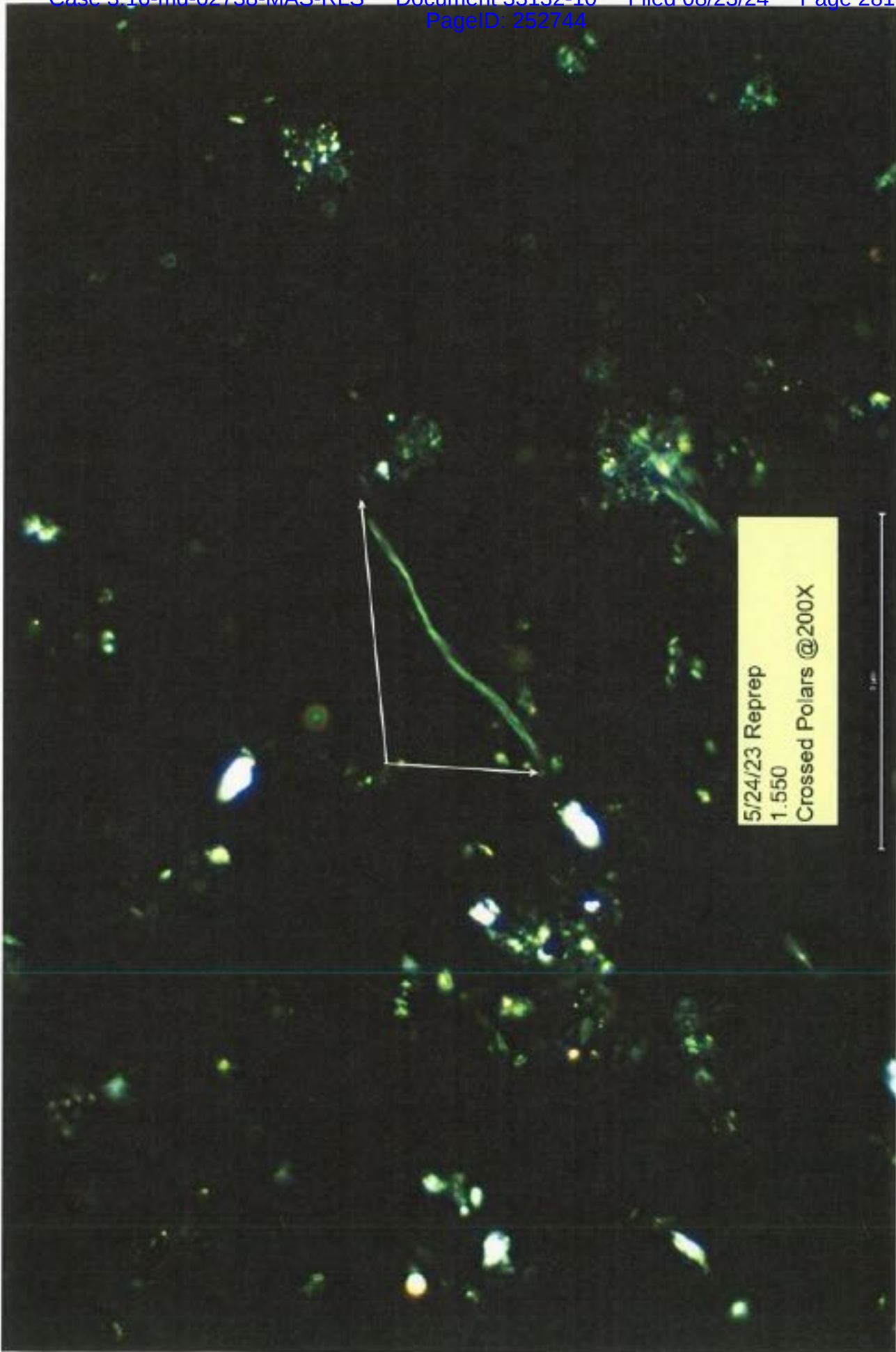


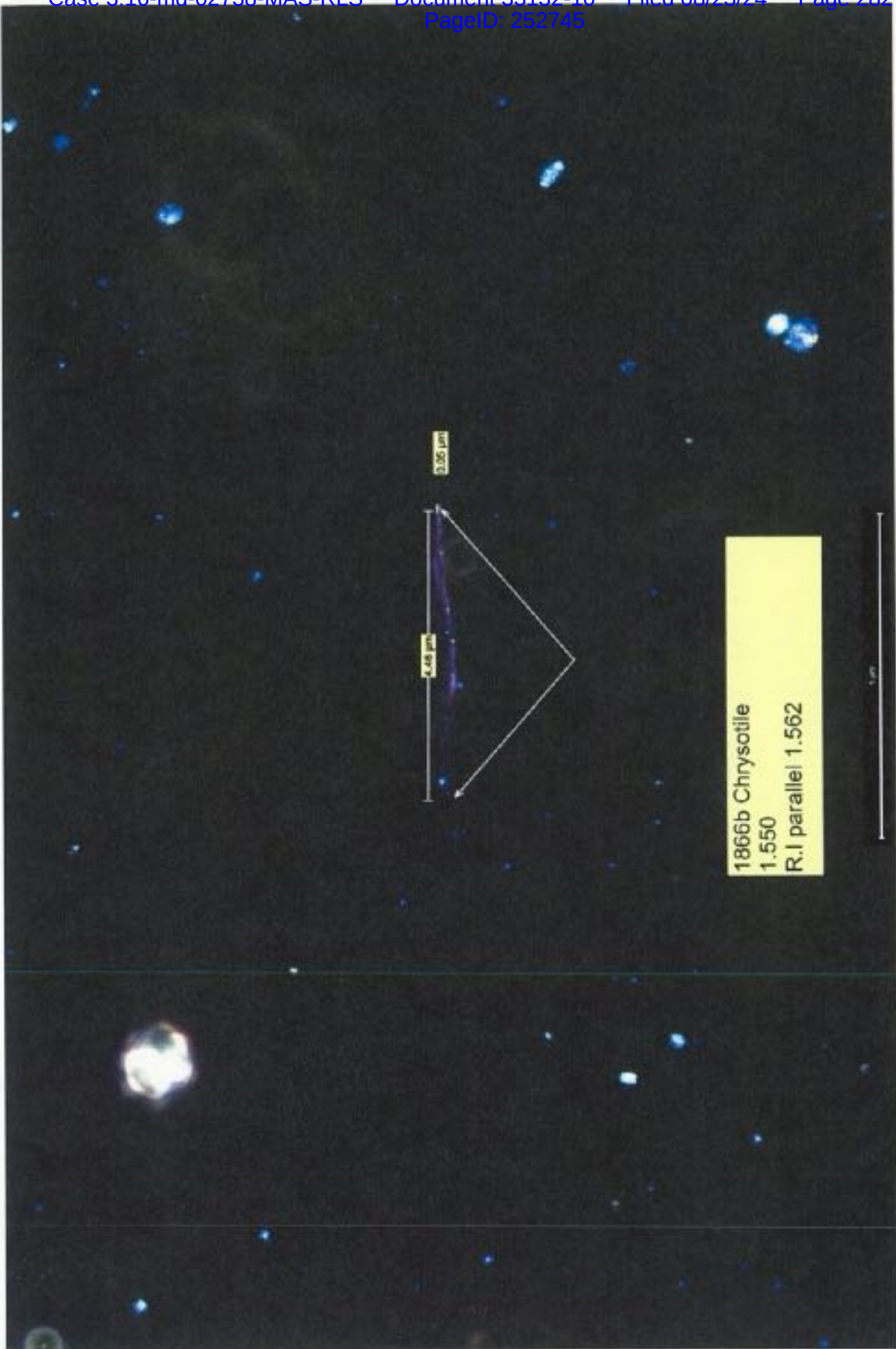


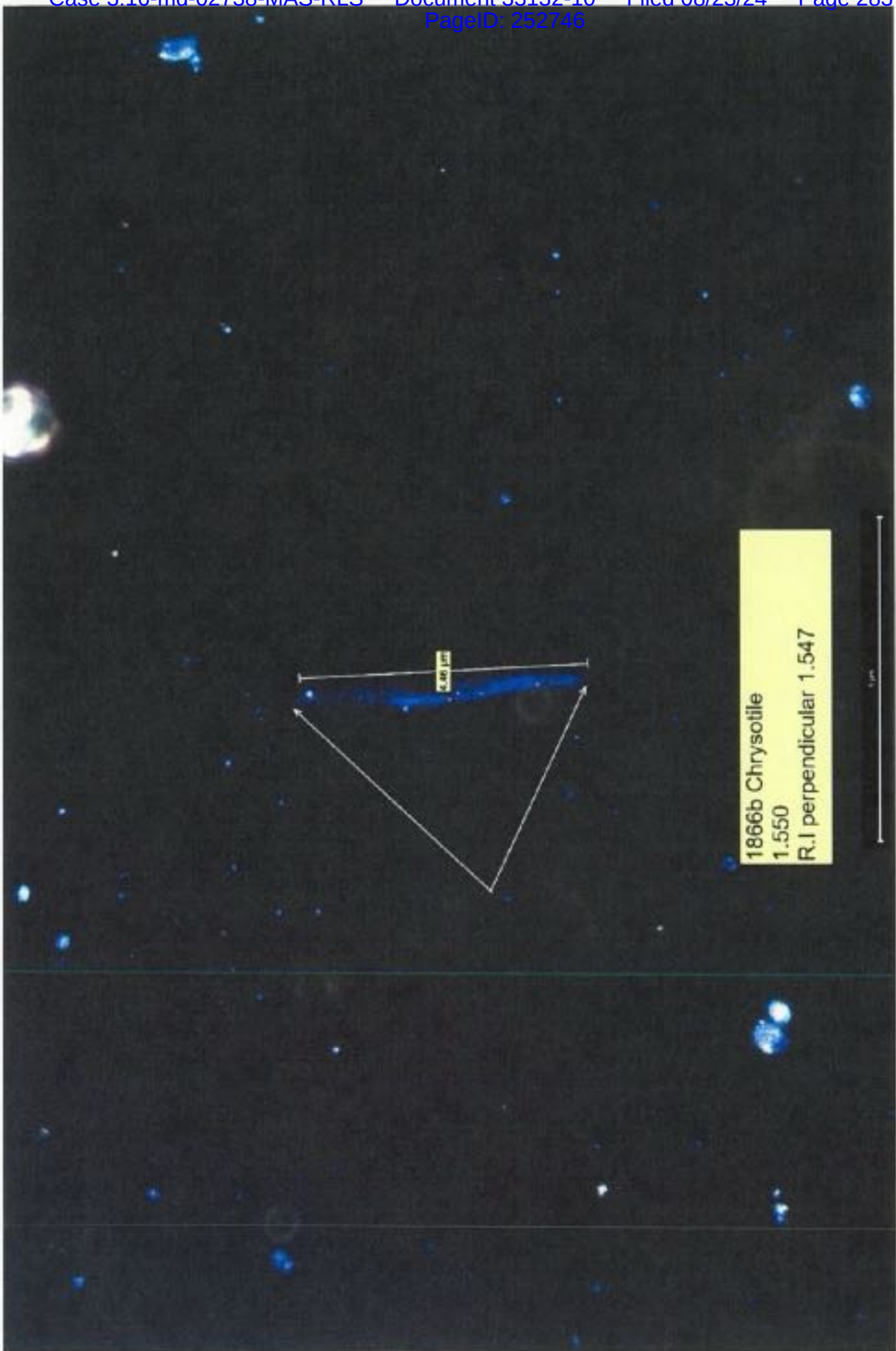








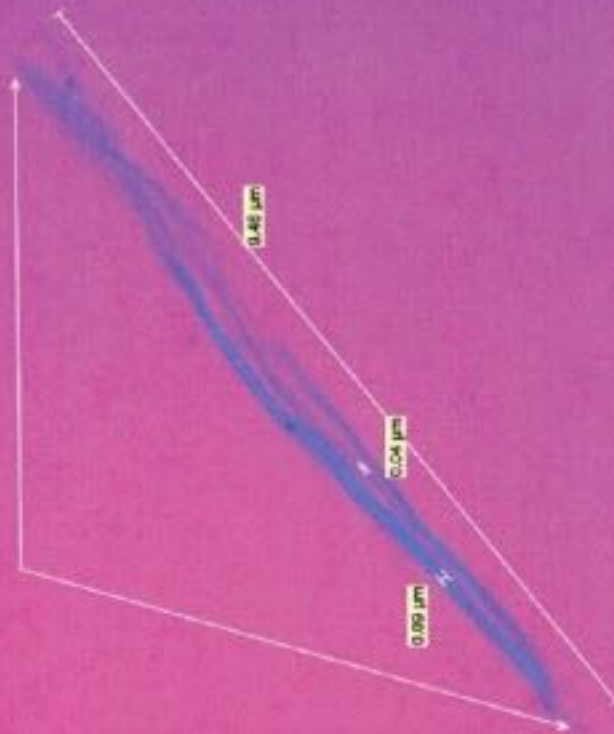




1866b Chrysotile
1.550
R.I perpendicular 1.547

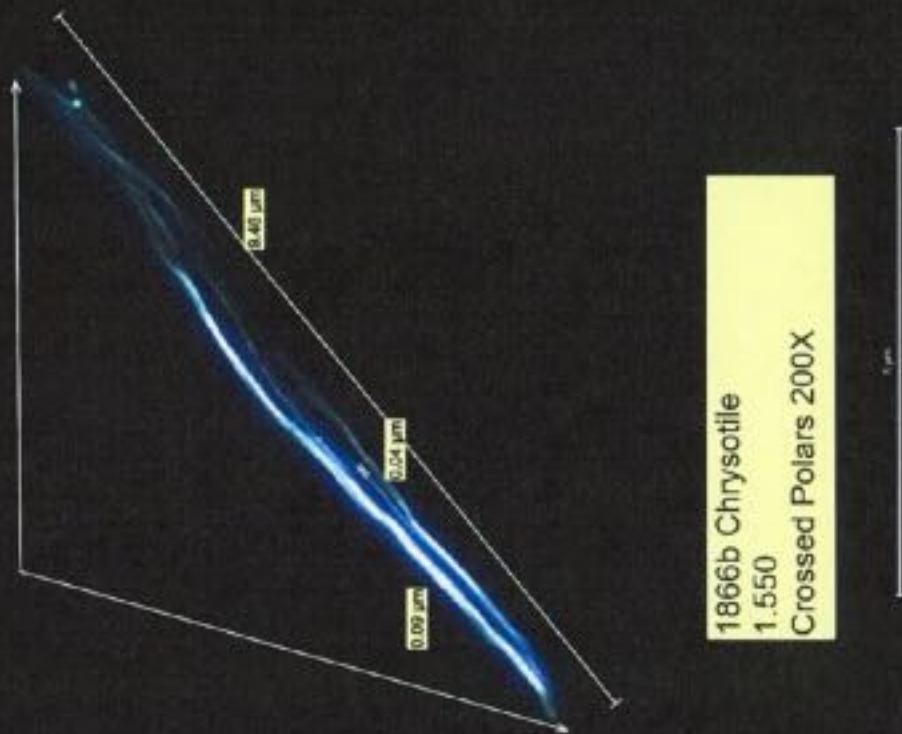
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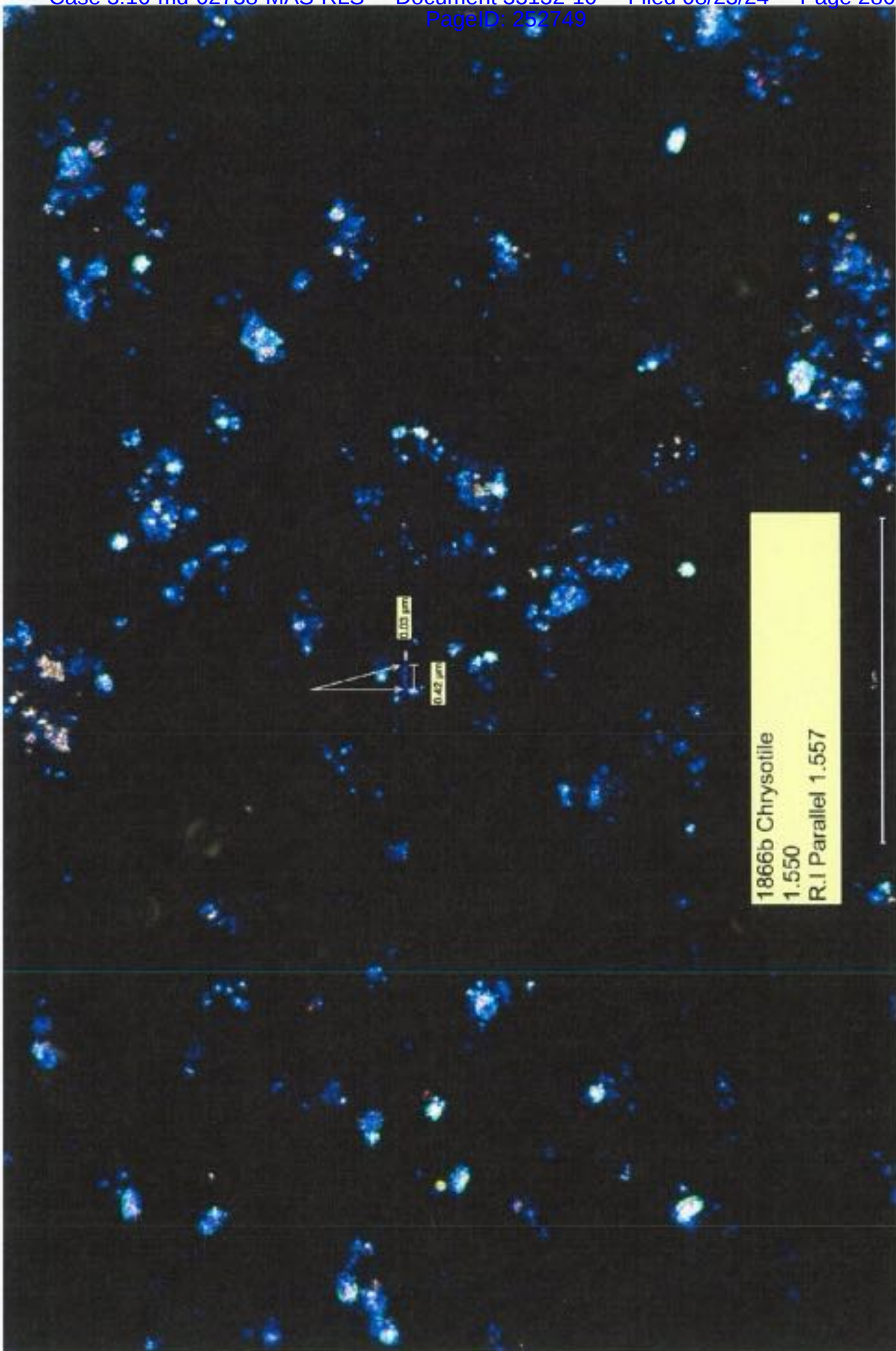
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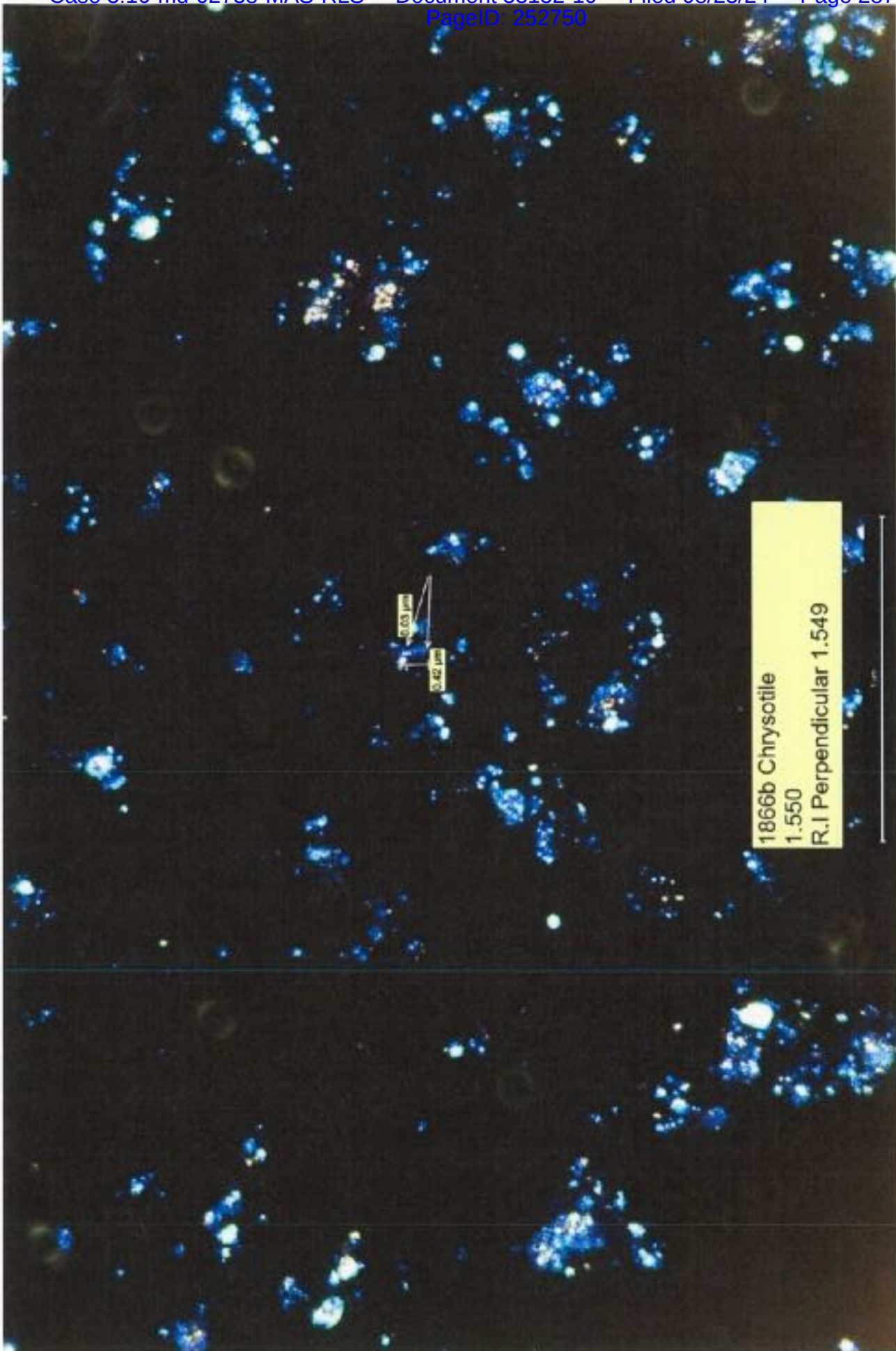


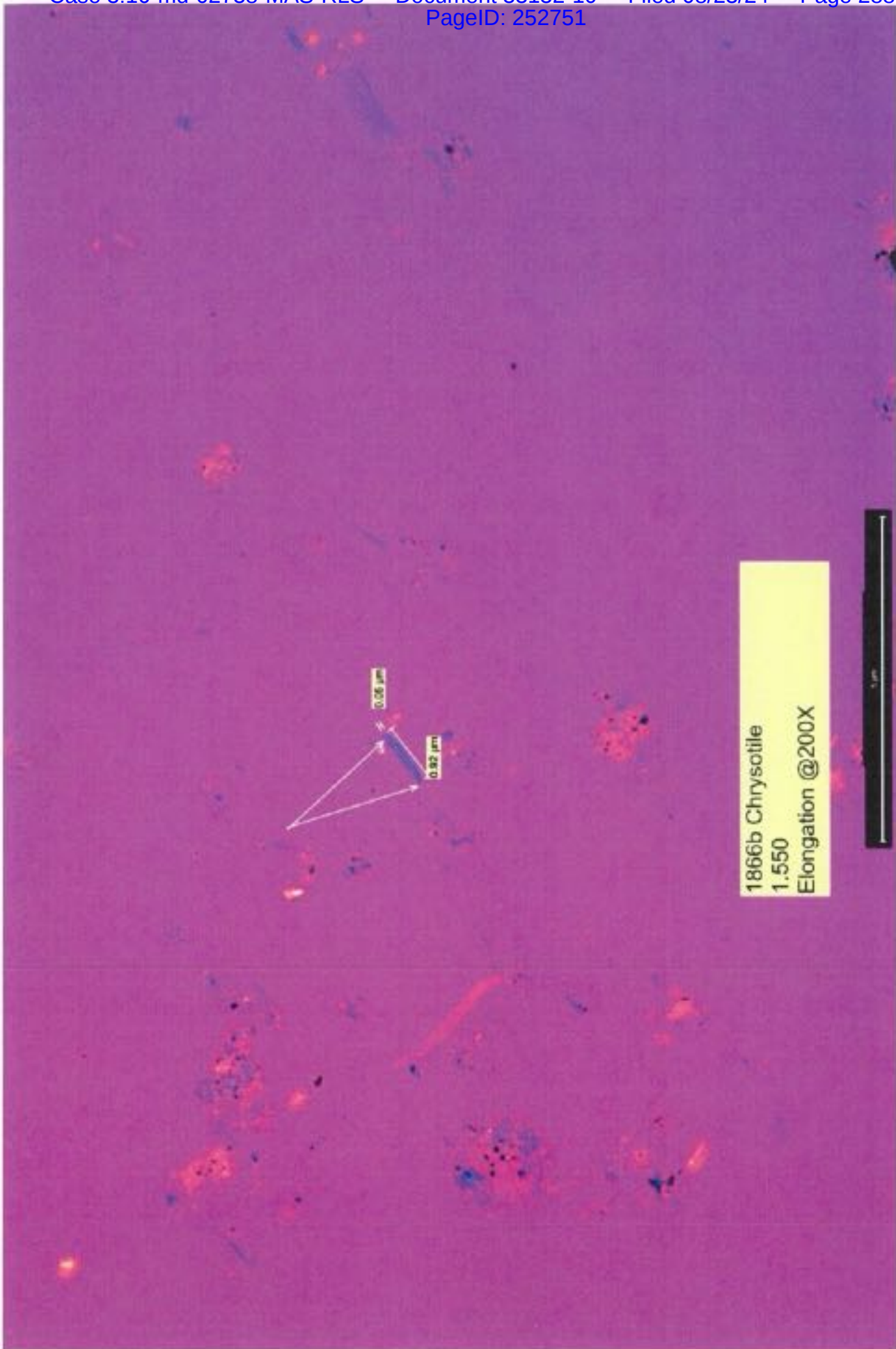
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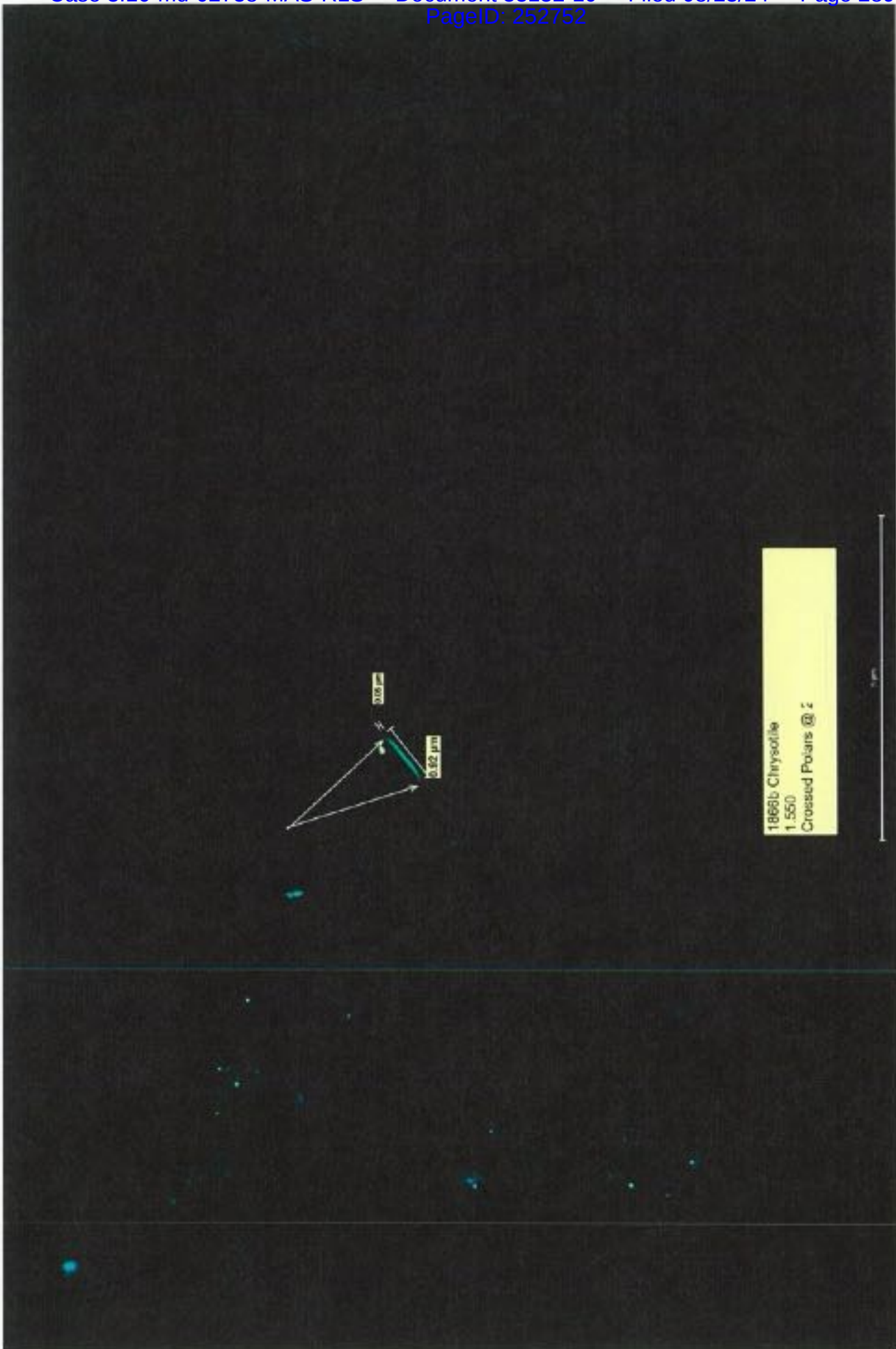














1866B Chrysotile Standard 002
Parallel Dispersion 1.550 R.I. @ 100X
R.I. 1.563

25 μ m



Exhibit 78

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF ALAMEDA

---000---

MARLIN LEWIS EAGLES and

GEORGIA EAGLES,

Plaintiffs,

No. 22CV018294

vs.

ARVINMERITOR, INC., et

al.,

Defendants.

_____/

VIDEOTAPED ZOOM DEPOSITION OF WILLIAM LONGO, Ph.D.

VOLUME 3, Pages 282 - 507

November 3, 2023

REPORTED BY:

EARLY K. LANGLEY RMR, RSA, B.A.

CSR NO. 3537

JOB NO: 6298688

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I N D E X

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WILLIAM LONGO, Ph.D.

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EXAMINATION BY MR. RISING

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E X H I B I T S

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DEPOSITION OF WILLIAM LONGO, Ph.D.

BE IT REMEMBERED, that pursuant to Notice, and
on November 3, 2023, commencing at the hour of
8:10 a.m. Pacific Time, before me, EARLY LANGLEY, a
Certified Shorthand Reporter, State of California, via
Zoom appeared WILLIAM LONGO, Ph.D., produced as a
witness in said action, and being by me previously duly
sworn, was thereupon examined as a witness in said
cause.

---oOo---

APPEARANCES:

For the Plaintiffs:

MICHAEL REID

Kazan, McClain, Satterley & Greenwood

55 Harrison Street

Suite 400

Oakland, California 94607

(510) 302-1000

Mreid@kazanlaw.com

1 For the Defendant Perrigo Company of Tennessee f/k/a
2 Cumberland-Swan and CMC, Inc.:

3
4 JEFF HINES
5 Goodell, DeVries, Leech and Dann LLP
6 One South Street
7 Baltimore, Maryland 21202
8 Jjh@gdldlaw.com
9

10 For the Defendants Longs Drug Stores California, LLC.,
11 on behalf of Longs Drug Stores California, Inc.; Lucky
12 Stores (Save Mart) LLC f/k/a Lucky Stores, Inc.; and
13 Safeway Inc:

14
15 KEVIN RISING
16 Barnes & Thornburg LLP
17 2029 Century Park East
18 Suite 300
19 Los Angeles, California 90067
20 (310) 284-3880
21 Krising@btlaw.com
22
23
24
25

1 For the Defendants, Johnson & Johnson; LTL Management:

2
3 MORTON D. DUBIN

4 SHAILA R. DIWAN

5 King & Spalding LLP

6 1185 Avenue of the Americas

7 34th Floor

8 New York, NY 10036

9 (212) 790 5346

10 Mdubin@kslaw.com

11 Sdiwan@kslaw.com

12
13 KIM BUENO

14 CHRIS COWAN

15 Butler Snow LLP

16 1400 Lavaca Street, Suite 1000

17 Austin, Texas 78701

18 (737) 802-1820

19 kim.bueno@butlersnow.com

20 Chris.cowan@butlersnow.com

21
22 ALSO PRESENT:

23
24 Geoff Minger, Videographer

25
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--oOo--

P R O C E E D I N G S

--oOo--

THE VIDEOGRAPHER: We are going on the
record at 11:10 a.m. on November 3, 2023. This is 08:10
Volume III of the remote video-recorded deposition
of William Longo, Ph.D., in the matter of Marlin
Lewis Eagles and Georgia Eagles v. Johnson &
Johnson, et al., filed in the Superior Court of
California, County of Alameda, Case Number 08:11
22CV018294.

This deposition is being held using remote
technology, and all parties are appearing
remotely.

The videographer is Geoff Minger, a notary 08:11
public from Veritext Legal Solutions. The court
reporter is Early Langley, also from Veritext
legal solutions.

Would counsel please identify themselves
for the record and state their appearances. 08:11

MR. REID: Good morning. This is Michael
Reid on behalf of the plaintiffs.

MR. DUBIN: Good morning. This is Morton
Dubin on behalf of the Johnson & Johnson-related
defendants. 08:11

1 MS. BUENO: Good morning. Kim Bueno on
2 behalf of Johnson & Johnson defendants.

3 MR. COWAN: Chris Cowan from Butler Snow
4 on behalf of the same.

5 MR. RISING: Kevin Rising on behalf of 08:12
6 Longs, Lucky, and Safeway.

7 MR. HINES: Jeff Hines on behalf of
8 Perrigo Tennessee.

9 MS. DIWAN: Shaila Diwan on behalf of
10 Johnson & Johnson. 08:12

11 THE VIDEOGRAPHER: Thank you.

12 We are on the record. You may proceed.

13 MR. DUBIN: Great.

14 WILLIAM LONGO, Ph.D.

15 previously sworn as a witness,

16 testified as follows:

17 EXAMINATION BY MR. DUBIN:

18 Q. Hi, Dr. Longo. Just because I know that
19 the retailers need some time with you today, I'm
20 going to try to be relatively brief, mostly just 08:12
21 cover some cleanups on specific and general
22 questioning.

23 Let's start just by marking the notice for
24 day 3 as Exhibit 35.

25 (Whereupon, Defendants' Exhibit 35 was 08:12

1 marked for identification.)

2 BY MR. DUBIN:

3 Q. And did you bring anything new with you
4 today or just the same things that you had at the
5 prior depositions? 08:12

6 A. Well, I brought the Longs Baby Powder
7 container analysis. I brought the Valadez
8 analysis. I went through Alan Segrave's April 17,
9 2023 report.

10 And I downloaded one thing -- well, I got 08:13
11 this edge effects on talc particles photograph, I
12 guess you marked as an exhibit.

13 Q. Correct.

14 A. And that's it.

15 Oh, also brought along Mr. Eagles' two 08:13
16 containers, the body powder medicated that had
17 talc in it and then the Equate, which was a
18 cornstarch, brought those analysis.

19 And that's all. That's all the new stuff.

20 MR. DUBIN: Okay. So even though it's -- 08:14
21 I assume it's just the same as what I marked
22 before, we'll just make your copy of the red-edged
23 slide 36.

24 (Whereupon, Defendants' Exhibit 36 was
25 marked for identification.) 08:14

1 BY MR. DUBIN:

2 Q. Before we get to that, just briefly on
3 Mr. Eagles' home, is it your understanding that it
4 was constructed in around 1927?

5 A. Yeah, somewhere around there. 1926, 1927. 08:14

6 Q. Okay. And I think that you said
7 previously that you were not aware of asbestos
8 products being used in home construction around
9 that time; is that correct?

10 A. That's correct. 08:14

11 Q. What, if any, investigation did you do to
12 confirm that?

13 MR. REID: Overbroad.

14 THE WITNESS: I guess I relied on my
15 35 years of experience doing this type of work, 08:14
16 especially a lot of product ID, and when
17 manufacturers started making stuff and selling
18 them for residential homes.

19 So did you find something that I'm not
20 aware of? 08:15

21 BY MR. DUBIN:

22 Q. Well. I'll ask you -- I'll ask you -- I
23 mean, I'll ask you a couple of questions about
24 that.

25 Let's just mark -- we'll make 37 -- 08:15

1 Of course, you've done a good deal of work
2 for the Lanier firm; isn't that right?

3 A. Yes, I have.

4 Excuse me. I don't know why I was
5 mumbling like that. 08:15

6 Yes, I have.

7 Q. All right.

8 MR. DUBIN: We'll just make as the next in
9 order a website from the Lanier firm.

10 (Whereupon, Defendants' Exhibit 37 was 08:15
11 marked for identification.)

12 BY MR. DUBIN:

13 Q. And so I assume you've never seen this
14 about asbestos in plaster from the Lanier website?

15 MR. REID: Just going to object to the 08:15
16 extent that the exhibit lacks foundation. It's
17 unauthenticated hearsay and has no foundation
18 regarding its source material and information.

19 MR. DUBIN: Okay. Well, you can just say,
20 "Object to form." 08:16

21 MR. REID: You actually can't in
22 California. That is not proper. It does not
23 preserve your right.

24 MR. DUBIN: All right. Well, it's fine.

25 BY MR. DUBIN: 08:16

1 Q. Dr. Longo, you haven't seen this before;
2 right?

3 A. No. I typically don't look at plaintiffs
4 or defendants website unless there's something
5 unusual there. I don't know where he would have 08:16
6 gotten that information. I've not seen it.

7 Q. We'll look at a couple different things.
8 We'll scroll down here. You see there's a
9 reference to asbestos being in the United States
10 Gypsum plaster from 1920 to 1975? 08:16

11 A. I see that he states that, yes.

12 Q. Again, obviously, is it fair to say you
13 didn't even Google when -- whether there was
14 asbestos in home construction in the 1920s?

15 MR. REID: Vague as to time and 08:17
16 argumentative, ignores fact, and misstates
17 previous testimony.

18 BY MR. DUBIN:

19 Q. Just asking, did you Google when there was
20 asbestos in construction products in the United 08:17
21 States?

22 MR. REID: Same objections.

23 THE WITNESS: No.

24 MR. REID: Also lacks foundation in the
25 sense that that's pointless. 08:17

1 THE WITNESS: "Construction products" mean
2 a lot of different things. I mean, certainly,
3 there was asbestos products -- you know,
4 Johns-Manville came up with, essentially, cement
5 board with asbestos in it and -- and their 08:17
6 first -- one of their first clients was railroads,
7 who put it in the floor from the sparks coming up
8 from the brake shoes. So there was asbestos
9 product.

10 But I was never aware, at least in all my 08:18
11 research over the years, because we'd get involved
12 in things, like, oh, yeah, we took plaster off an
13 old house. We never found asbestos until in later
14 years, and they mainly put it in plaster so they
15 could shoot it versus troweling it on, especially 08:18
16 on outside of the houses.

17 So I don't have any reason -- you know, I
18 don't know the information. Certainly, if there
19 is reliable information that says that there is
20 asbestos in plaster, then I will have to re- -- 08:18
21 change my opinion.

22 BY MR. DUBIN:

23 Q. Okay. We'll just mark a few other things.
24 So the next, again, is something from the Web. If
25 you Google -- and you're welcome to do it yourself 08:18

1 at some point -- but asbestos in homes in the
2 '20s, this is a blog post.

3 (Whereupon, Defendants' Exhibit 38 was
4 marked for identification.)

5 BY MR. DUBIN: 08:18

6 Q. Do you see that?

7 MR. REID: Just real quick before the
8 answer, I'm just going to object again to another
9 website posting that lacks foundation, lacks
10 authentication, is unauthenticated hearsay, and 08:19
11 further lacks foundation in its source material.

12 MR. DUBIN: Let me just put on the record
13 that I think it goes to the sufficiency or
14 diligence of the investigation that Dr. Longo has
15 performed -- 08:19

16 (Off the record discussion to discuss
17 audio interference.)

18 MR. DUBIN: I think it may be that -- I
19 don't know if it's plaintiffs' counsel, that you
20 may need to mute when you're not speaking so that 08:19
21 you don't get a double echo of my speaking through
22 both.

23 THE VIDEOGRAPHER: Or if they have a
24 headset available or earbuds that they can plug
25 into their device. 08:20

1 MR. DUBIN: Yeah, let's just try muting
2 and unmuting, because that should work. I'll try
3 to pause for you to be able to object.

4 (Audio interference, reporter
5 clarification.) 08:21

6 MR. DUBIN: -- sufficiency of his --
7 diligence of his investigation and, therefore, is
8 fully admissible.

9 MR. REID: In response to that, it does
10 not satisfy the foundation or hearsay issues 08:21
11 associated with the website.

12 In addition, you are more than welcome to
13 ask him about the sufficiency of his actual
14 research, which I believe is something around the
15 years -- 30 years of testing products containing 08:21
16 asbestos, ranging from the beginning of the 1900s
17 through the 2020s, including defendants' products
18 and various construction materials.

19 You're more than welcome to ask him about
20 all that and that research rather than your 08:21
21 two-bit Google search trying to find actual
22 authentic source material, which is
23 not admissible --

24 MR. DUBIN: We're on a time limit today,
25 and if we're going to get very long objections, 08:21

1 that time is not going to count. So I'm just
2 telling you that that's my view of this, because
3 you're going on and on.

4 You objected. I made my record briefly.

5 Let's move on. 08:22

6 MR. REID: And because you made your
7 record briefly, Counsel, I was able to make my
8 record briefly. So if you want to continue to put
9 things on the record, you can continue to do so,
10 but it does count towards your time because you're 08:22
11 making a record and now I'm entitled to do so.

12 So please continue.

13 MR. DUBIN: Oh, my goodness.

14 BY MR. DUBIN:

15 Q. So again, one of the things you've looked 08:22
16 at in the past, for example, has been
17 interrogatories of various companies to see what
18 they may have -- what their product may have
19 contained and when they manufactured them; right?

20 A. I have. 08:22

21 Q. Did you do any of that to determine what,
22 if any, asbestos-containing home construction
23 materials, any of the major manufacturers such as
24 United States Gypsum produced in the 1920s?

25 MR. REID: Vague as to time. 08:22

1 THE WITNESS: I did not.

2 BY MR. DUBIN:

3 Q. Okay. And -- all right. And I want to
4 switch briefly then to the two containers that you
5 indicated you have identified richterite in that 08:23
6 are associated with Johnson & Johnson. One of
7 those --

8 First, let me ask you, at some point you
9 said this. This was your MDL report dated
10 11/14/2018. 08:23

11 MR. DUBIN: So this will be 39.

12 (Whereupon, Defendants' Exhibit 39 was
13 marked for identification.)

14 BY MR. DUBIN:

15 Q. And you said, you'll only be relying on 08:23
16 that report and any future supplemental reports
17 regarding the analysis of historical JBP/STS
18 samples and containers.

19 Is that still true?

20 A. Is that the MDL report? 08:24

21 Q. That's the MDL report.

22 So in the MDL report, you wrote that after
23 you wrote the MDL report, you would only be
24 relying on that report and any future supplemental
25 reports involving the analysis of historical 08:24

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1 JBP/STS samples/containers.

2 Is that still true?

3 MR. REID: Vague and ambiguous.

4 THE WITNESS: Certainly, it was true for
5 that report in 2018. You know, five years later, 08:24
6 the question comes up, was there ever any
7 richterite found in Chinese samples,
8 Chinese-sourced samples. Yes, there was. It was
9 the -- it was not J&J product. It was a company
10 that bought the Shower to Shower from J&J, and 08:24
11 they continued to use Chinese.

12 So I don't know if I have to -- we'll be
13 using it in any updated -- the MDL report, but
14 certainly, I'm going to be relying on it here.

15 BY MR. DUBIN: 08:25

16 Q. Okay. So, again, the first -- the first
17 bottle that you claimed to find richterite in,
18 that was an eBay bottle, correct, bottle purchased
19 off eBay and provided to you by plaintiffs'
20 counsel? 08:25

21 A. That is correct.

22 Q. Okay. And that was from a report that
23 predated this MDL report; correct?

24 A. I believe that is correct.

25 Q. Okay. And so here in the MDL report, 08:25

1 you're saying you are not going to rely on those
2 prior reports, the eBay reports.

3 Are you now relying on it anyway?

4 MR. REID: Vague and ambiguous. That MDL
5 report was issued for the MDL, not for this case. 08:25

6 So, Counsel, you can ask him what he's
7 relying upon for purposes of this case, but this
8 is not a depo in the MDL.

9 THE WITNESS: As I've stated, this is for
10 the MDL, and the MDL was about the historical 08:26
11 samples. This is not a MDL case. And this
12 answers a question.

13 I couldn't ignore the fact that we had
14 analyzed samples from -- sourced from Chinese that
15 had either richterite or winchite in it. I'm 08:26
16 certainly not going to ignore the any eBay samples
17 or samples contributed by the actual mesothelioma
18 victim.

19 So as I look at it, this report here has
20 nothing to do with what we're doing today. 08:26

21 BY MR. DUBIN:

22 Q. So just to be clear, the first bottle was
23 an eBay bottle, and it was not -- it was not a --
24 and it was a bottle that was purchased off eBay by
25 the Kazan firm and given to you; correct? 08:26

1 A. Correct.

2 Q. And the second bottle was purchased by the
3 Simon and Greenstone plaintiff law firm and given
4 to you; correct?

5 A. Correct. 08:27

6 Q. Okay. And so just to -- you've never
7 found any richterite in any Johnson & Johnson
8 product that came from Johnson & Johnson's
9 historical collection of talcum powder products;
10 correct? 08:27

11 A. Of the ones we've analyzed, that's
12 correct.

13 Q. Okay. And approximately how many have
14 you -- bottles have you analyzed from the
15 Johnson & Johnson historical collection? 08:27

16 A. Maybe 70, all total.

17 Q. To make it clear, the only bottles in
18 which you claim to have found richterite of
19 Johnson & Johnson were provided to you by
20 plaintiffs' counsel; correct? 08:27

21 A. That is correct.

22 Q. And -- all right. Just quick cleanups on
23 the fiber burden stubs.

24 Would you consider what you did a
25 confirmation analysis given that you didn't go 08:28

1 through and try to confirm the specific particles
2 that Dr. Abraham identified?

3 A. It's very hard to find very specific
4 particles and do it within a reasonable time. But
5 we found all similar types of particles that 08:28
6 Abraham found -- Abraham found in the lung tissue.
7 So, therefore, it's confirmation, at least in my
8 opinion, that Mr. Eagles' exposure had to do with
9 his talcum powder exposure.

10 Q. Okay. We'll talk about that part of it in 08:29
11 a second.

12 In other words, were you going through and
13 trying to confirm the specific particles that
14 Dr. Abraham found?

15 A. We were -- we were trying to find either 08:29
16 the very same particles, or minerals, the same
17 types of minerals --

18 I'm sorry, let me turn this off.

19 -- the same type of minerals that
20 Dr. Abraham was finding, such as fibrous talc or 08:29
21 platy talc or aluminum silicates or tremolite or
22 richterite, what have you.

23 Q. What was your personal involvement with
24 the confirmation analysis? Were you the one
25 operating the SEM or taking the images? 08:29

1 A. No, I was not the one operating the SEM.

2 Q. And what personal involvement did you have
3 with the confirmation analysis?

4 A. With the MVA, with Dr. Vander Wood, I was
5 sitting right there. 08:30

6 With our own in-house SEM work, until the
7 detectors quit on us, I was there supervising
8 and -- not sitting through the entire session, but
9 what to look for, what types of particles we
10 wanted to see, which is basically anything you 08:30
11 find there, talc plates, fibrous talc, any type of
12 asbestos, any type of aluminum silicates, anything
13 unusual, you know, record it.

14 So it's under my direction, but no, I
15 wasn't sitting at the SEM. 08:31

16 Q. Did you identify any chrysotile in
17 Mr. Eagles' tissue?

18 A. Not that I could say with any reasonable
19 degree of scientific certainty.

20 Q. Do you have any view on how that could be 08:31
21 since you've claimed that there's routinely
22 chrysotile in Johnson & Johnson products?

23 A. There is chrysotile in Johnson & Johnson
24 products, but we're looking at lung tissue, and in
25 lung tissue, one, you got a biopersistence issue 08:31

1 in the lungs; two, you're taking a very small
2 sample, especially in the lung tissue, out of an
3 area -- you have a surface area -- if you were to
4 open up the lungs and lay them out, you have the
5 surface area of a tennis court. So it's not 08:32
6 unusual to find or not find things in there that
7 one might expect.

8 We've done other cases where we do find
9 chrysotile. So it just depends on both exposure,
10 what the biopersistence issue is with that 08:32
11 particular mineral, and what area of the lungs are
12 removed.

13 Q. What -- I know you've also produced
14 reports having to do with Leavitt and Doyle.

15 What is your source of information for the 08:32
16 extent to which those individuals used talc?

17 A. Both those -- both those lung tissues -- I
18 would have to pull the report. But both of them
19 were, you know, Johnson & Johnson users.

20 And something like Leavitt, we were able 08:32
21 to find specifically the same things that Abraham
22 at that time found. And they're just used as
23 examples of, here's other talcum powder, J&J
24 talcum powder exposures, and here's what we're
25 finding in the lungs, essentially the ingredients 08:33

1 of the J&J products.

2 Q. I guess my question is more basic. In
3 other words, what is the source of information
4 that you have about the extent to which they used
5 Johnson & Johnson talc, for example, and whether 08:33
6 they had exposures from other sources? Is that
7 the deposition testimony of those individuals?
8 Did you review that at some point? Is that what
9 you're relying on?

10 A. I don't remember back that far exactly, 08:33
11 you know, what I reviewed at the time. I
12 didn't -- I didn't -- at the time we did the
13 reports and issued them, et cetera, I don't
14 recall. I don't want to speculate right at the
15 moment. 08:34

16 Q. So the reports or your testimony in those
17 cases will indicate what materials you relied on
18 for facts about their exposure or alternative
19 exposures; is that fair?

20 A. I don't know. It's not fair until I have 08:34
21 a chance to review it because I don't recall what
22 I relied on.

23 Q. Did you identify talc in Mr. Eagles'
24 tissue?

25 A. Well, let me get it. 08:34

1 Let's see. This is Leavitt's.

2 Yes, we did. I'm having trouble finding
3 the report.

4 I see this stuff from MVA, and we found
5 talc there. 08:35

6 Somehow...

7 I'm going to say, yes, we did, and so did
8 Abrams -- Abraham. Excuse me. Jeez.

9 Q. Why don't we do this, because I think
10 other people are going to question after me. 08:36
11 Maybe you can look for it on a break, and they can
12 follow up on that topic if you can't find it right
13 now.

14 A. Okay. I know it's here.

15 Q. All right. And then just a few quick 08:36
16 general questions.

17 MR. DUBIN: First, I'll mark this as next
18 in order.

19 What are we -- are we on 40, Early?

20 THE REPORTER: Yes. 08:36

21 MR. DUBIN: Hold on. I'm lost.

22 (Whereupon, Defendants' Exhibit 40 was
23 marked for identification.)

24 BY MR. DUBIN:

25 Q. It will be the set of slides regarding the 08:36

1 Valadez particles.

2 Did you -- we spoke about this before.

3 Did you look through these particles to see

4 whether the circled ranges are what you reported

5 as the color for these particles in parallel? 08:37

6 A. I just got to find it.

7 Q. No problem.

8 A. Yes, I did look at them.

9 Q. Can you just let me know if there are any
10 corrections. 08:37

11 A. Okay. I have it. Wait a minute. You
12 just changed it on me, didn't you?

13 Q. Sorry. I was going to start from the
14 beginning of it. I didn't realize you were going
15 to the specific page number. 08:37

16 A. Well, I don't have page numbers on my
17 report.

18 Q. Okay.

19 A. So let me get to it.

20 Q. I'm sorry. 08:37

21 A. That is Number 1CSM. That should be the
22 first one up.

23 Q. And hopefully they're in order.

24 A. No, they're not in order here for some
25 stupid reason. 08:38

1 Q. That's life.

2 A. I'm talking to myself.

3 Okay. I have it.

4 Q. Okay. So the color in parallel for this
5 particle, M71614-001CSM-001, is that the 08:38
6 approximate color that you identified it as in
7 parallel where it's circled --

8 A. If you go around the edge of the bundle,
9 it's a purplish color.

10 Q. Okay. And then this particle, the next 08:39
11 one, does that appear accurate? This is now
12 M71614-001CSM-002?

13 A. Again, let me get to it.

14 Q. Sure.

15 A. My book is out of order. Somebody is 08:39
16 messing with me.

17 Q. I wish I could claim credit for that,
18 but...

19 A. I understand.

20 1.65, right. 1.68. 08:39

21 I just looked at this, I thought, last
22 night.

23 Okay. 1.002. Here's 002.

24 Okay, I have it.

25 Q. Again, are the circled colors 08:39

1 approximately what you're identifying as particle
2 in parallel as the color?

3 A. Yes. It's what -- you don't see it too
4 well on that photograph, but I'm looking at this
5 one, which I can see the outer -- you know, the 08:40
6 outer edge of the bundle does have that kind of
7 purplish color.

8 Q. And then next particle, M71614-001CSM-003,
9 are the circled numbers approximately what you're
10 calling this particle for purposes of your 08:40
11 analysis?

12 A. 003.
13 168, so we're getting -- starting to get
14 up into the reddish range, pinkish-red. Yeah,
15 that one is blown up some, so I can see it on the 08:41
16 outer side, on the outer edge -- on the edge of
17 the bundle. So yes, I'm good with that.

18 Q. Okay. Last one, I think,
19 M71614-001CSM-004. Is the circled range what --
20 approximately what you're calling this for 08:41
21 purposes of your analysis?

22 A. Let's see. We've got purplish to red to
23 pink. Yes, that's good.

24 Q. Okay. Great. Let me just ask you, since
25 you brought it and we marked it as 36, what do you 08:42

1 have to say about the red edge on talc plates?

2 A. Well, first, these photographs have been
3 increased in size or blown up quite substantially,
4 so that will cause the fuzziness. You know,
5 you're losing resolution on the pixels. 08:42

6 And two, if you go to those individual
7 samples -- now, I wasn't able to find a lot of
8 them. If you go to the individual samples and you
9 can see the reddish line around the talc plates,
10 you'll also see it in the gamma direction of the 08:42
11 actual chrysotile structure -- pardon me -- the
12 talc structure.

13 So it's -- and then if you go to
14 perpendicular, it's all gone. So it's not an
15 artifact that's being generated here. 08:43

16 And also, when I went through Segrave's
17 report, his April 17, 2023 report -- now, these
18 weren't all blown up, but if you look at their PLM
19 analysis that they did, they have these same kind
20 of -- on some of the -- some of the talc plates, 08:43
21 same kind of red around the talc plates.

22 So this is not an artifact. This is --
23 this is what you would expect in some cases. So
24 in order to be an artifact, it has to have red --
25 plates around -- red around everything. And it 08:43

1 doesn't.

2 Q. Okay. We'll probably have to take that up
3 at another time than today.

4 And then I wanted to make sure that I was
5 clear. Two quick questions about calculation of 08:43
6 birefringence.

7 A. Okay.

8 Q. Let me go to -- we're going to talk about
9 ISO if you want to call it up.

10 A. I have it here still. 08:44

11 Q. Okay. So grab it.

12 A. Where are we here?

13 Q. We don't need to mark it. ISO 22262-1.

14 A. What page?

15 Q. We talked about some of the definitions in 08:44
16 here, but I didn't ask you about one of them. For
17 example, we talked about the definition of alpha
18 and gamma in here, which, for example, alpha being
19 lowest refractive index exhibited by a fiber.

20 I want to ask you about 2.12. 08:44

21 A. 2.12.

22 Q. Right here.

23 "Definition of birefringence:

24 Quantitative expression of the maximum

25 difference in refractive index due to 08:45

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1 double refraction."

2 What is your interpretation of the term
3 "maximum difference" in that statement?

4 A. The gamma versus the alpha. It says
5 nothing about if you have a range. That's how I 08:45
6 interpret that.

7 Q. What does the word "maximum" there mean?

8 A. It means the -- looking at the Michel-Levy
9 charts, the highest -- the maximum difference
10 means it's the gamma versus the alpha. 08:45

11 Q. That's just the difference. What does the
12 word "maximum" mean?

13 A. That it's the highest one.

14 Q. The biggest difference in alpha versus
15 gamma? Is that what you're saying "maximum" 08:45
16 means?

17 A. No, it's not saying that. Does it say
18 anything like that, the biggest difference between
19 alpha and gamma; that if you have a range, that
20 you take the highest alpha and subtract it out of 08:46
21 the smallest gamma?

22 And then when you go to the actual
23 protocol on how to do birefringence, it has none
24 of that in there.

25 So you can interpret the way you want. I 08:46

1 interpret it the way -- the way that -- when you
2 look at these different -- you know, you look at
3 EPA and you look at some -- you know, some double
4 refraction in Deer, Howie and Zussman, that's the
5 way they evaluate ranges. 08:46

6 Now, when you have -- when you have no
7 range, you just have a gamma and alpha, how do you
8 interpret that?

9 Q. I don't understand. So, again, let's
10 assume you have a range; right? 08:47

11 A. Yes.

12 Q. You're looking at this definition of
13 birefringence. What does the word "maximum" mean?

14 MR. REID: Asked and answered.
15 Cumulative. 08:47

16 Counsel, he's already given and discussed
17 this with you now for --

18 THE WITNESS: That's a misleading type of
19 question because that has nothing to do -- or even
20 says that if you have a range, you take a 08:47
21 quantitative expression of the maximum difference
22 in the gamma from the maximum -- the lowest amount
23 from -- from alpha. It doesn't say that.

24 This is how I interpreted it, and I'm not
25 going to interpret it any other way because the 08:47

1 underlying data, when you actually look at ranges
2 in samples with no ranges, this is how it works
3 out to be.

4 BY MR. DUBIN:

5 Q. Okay. We can talk about this more some 08:47
6 other time.

7 Do you know whether -- well, maybe I'll
8 just save that.

9 Let's see. Just curious. Talked about
10 this a little bit for EPA R-93. I don't need to 08:48
11 mark it.

12 And we talked about whether these ranges
13 here are for individual particles or for -- or
14 just general ranges in which alpha and gamma could
15 fall. 08:48

16 If this was an individual particle --
17 let's just take the top one -- 1.493 to 1.546 in
18 alpha and 1.517 to 1.557 in gamma, what would that
19 particle look like?

20 A. What it would look like? 08:49

21 Q. Yeah, what would it look like if it had
22 that entire range in alpha and that entire range
23 in gamma?

24 A. I don't know.

25 Q. Sure. I mean, have you ever seen a 08:49

1 chrysotile particle that would exhibit that entire
2 range in alpha and that entire range in gamma to
3 be an individual particle?

4 A. I have certainly seen the 1.546 and lower,
5 and I've certainly seen 1.557 and higher. But if 08:49
6 you want to take another one...

7 So it's not the point, if I've ever seen
8 it that low or that high.

9 If you go through any of these where you
10 have ranges, every one of these -- anthophyllite, 08:49
11 tremolite, amosite, chrysotile -- and do the
12 calculation, you'll get the same sort of -- you'll
13 get the birefringence. You won't get it taking
14 the highest gamma and the lowest alpha.

15 You sit down and start -- if you've ever 08:50
16 seen anything in this range, you know, they
17 referenced it from somewhere that, you know, maybe
18 it is the -- it could be across the board of this
19 particular scientist, what the ranges he found.

20 Q. Right. But for example -- 08:50

21 A. -- calculates --

22 (Reporter clarification.)

23 MR. DUBIN: Just go ahead. I didn't
24 realize he wasn't done.

25 THE WITNESS: All right. I guess I'm 08:50

1 done.

2 THE REPORTER: I didn't get it.

3 THE WITNESS: Oh. Well, just strike that,
4 then.

5 It doesn't matter if you ever found 08:50
6 chrysotile with this ranges or not. And this is
7 the total ranges. But if you just do the math on
8 the total ranges that they found, if you have a
9 1.493, okay, that would probably be the lowest
10 alpha ever found, and at 1.517 might be the lowest 08:51
11 gamma ever found.

12 But if you take the lowest alpha, subtract
13 it from the lowest gamma, and take the highest
14 gamma they've ever found and the highest alpha
15 they've ever found, it works out to the 08:51
16 birefringence range.

17 BY MR. DUBIN:

18 Q. Okay. We're going to have -- we'll just
19 have to do this some other time.

20 Because, Dr. Longo, again, that is 08:51
21 positing that there's a single -- you're talking
22 about birefringence of a single particle with an
23 alpha of 1.493 and a gamma of 1.557, right, which
24 no one is saying that particle even exists.

25 A. I don't know if I stated that or not, it 08:51

1 was one particle or not. But you also have a
2 range of birefringence, so you're going to have a
3 range.

4 I think the one thing we can't dispute,
5 when you try to do the Dr. Sanchez method of 08:51
6 calculating the birefringence and try it on any of
7 these, it is -- I think when I went through this
8 exercise, there was only one that came -- that
9 actually hit the 0.017 with an overall average of
10 0.035 birefringence using the Dr. Sanchez method. 08:52

11 Q. Okay.

12 A. Using the EPA method on every one of these
13 here, they're always in the .004 to .017 range.
14 There might be one that's 1.20 -- or if you go to
15 amosite, do the calculations there, or go to 08:52
16 crocidolite, it all works out.

17 Q. We're obviously not going to be able to
18 accomplish this today, so we'll talk about that
19 some other time.

20 Let me just ask you, then, one more thing. 08:52
21 Have you seen this?

22 MR. DUBIN: So I will mark this as next in
23 order. Are we on 41?

24 THE REPORTER: I think so, yeah.

25 (Whereupon, Defendants' Exhibit 41 was 08:53

1 marked for identification.)

2 BY MR. DUBIN:

3 Q. Have you seen this yet during your
4 practice of asbestos detection in pharmaceutical
5 talc? 08:53

6 A. Notice From the Expert Committee that
7 posted with this chapter, I don't think so.

8 When did that come out.

9 Q. Well --

10 A. November of 2023, official date? Well, 08:54
11 we're not there yet. Status of official -- so
12 this came out a day ago, two days ago?

13 Q. Well, I'm not under oath here, and so -- I
14 think it's very recent. I won't tell you exactly
15 what date because I'm not sure if it was a couple 08:54
16 of days ago or not, but I think it's recent.

17 So I just asked you if you had seen it
18 yet.

19 A. I haven't. But now I've got to -- can you
20 mark that as an exhibit? 08:54

21 Q. I did.

22 A. Okay. Great. Because I'm not sure about
23 it.

24 Q. I'm not going to ask you --

25 A. This is the -- was it expert committee or 08:54

1 whatever?

2 Q. Right. And I'm not going to ask you
3 anything in depth about it, then. I just want to
4 ask you about images -- some images here. And I
5 think these images are actually in some of the 08:54
6 older modernization stuff, too.

7 The talc here -- and we're looking at just
8 Figure 6. I'm not focusing on the chrysotile, but
9 the talc. Does that look to you like what you
10 would see through a PLM microscope of talc in 08:55
11 1.550 RI liquid --

12 A. 1.550. So I've got to go to 1.550 up
13 here.

14 Q. -- what talc should look like in 1.550 RI
15 liquid? 08:55

16 A. Do we know what talc this is?

17 Q. I'm just asking talc in general.

18 A. Well, you can't say talc in general
19 because different talcs have different mine
20 sources. Talcs look different. 08:55

21 I've seen it look like that. I've seen it
22 look different.

23 Q. And under which circumstances have you
24 seen it look different, just in your own work
25 or -- or anything -- anyplace else? 08:56

1 A. Well, I'll just look at -- I'll just reach
2 over and look at Segrave's work or whoever did the
3 PLM analysis, because that's not his deal. His
4 looked like mine, you know, the ones that you were
5 pointing out earlier. 08:56

6 So, you know, where that came from or what
7 that talc is, I've seen that in other samples,
8 but -- so, you know, we've probably analyzed close
9 to 500 cosmetic talc samples now from different
10 manufacturers. I would like to know what the mine 08:57
11 is.

12 Q. So I'm going to let other people ask about
13 the Segrave work.

14 But just do you know, off the top of your
15 head, when you're referring to the Segrave images 08:57
16 of talc, are those in 1.550 RI or 1.560 RI or
17 higher?

18 A. At least what I see here, it's all in
19 1.550 --

20 Q. Well, I -- 08:57

21 A. -- because he was -- he was working on
22 behalf of Longs, that analysis initially. This
23 is -- I think he -- mainly on the Longs stuff,
24 which when we did the analysis, we did 1.550.

25 Q. Do you think the talc particles here look 08:57

1 like what you're identifying as chrysotile in the
2 retailer's product?

3 A. No. One thing is the particulates. And
4 two, if you have the fibrous talc, your refractive
5 indices are going to be so different, you may, 08:58
6 between the gamma and the -- the gamma and the
7 alpha, and if you turn this, you show the
8 perpendicular, they don't change much.

9 Q. This should be perpendicular. Okay.

10 A. It's the same thing, where if you have 08:58
11 fibrous talc, you're going to get typically a very
12 bright bluish -- darkish bluish color, and none of
13 those particles do any of that.

14 Q. Well --

15 A. When you go to chrysotile in the 08:59
16 perpendicular, you get a bluish, sometimes darker
17 bluish color, where the intensity of the
18 birefringence is very much lower.

19 MR. DUBIN: I have reached my allotted
20 time for today, Dr. Longo, so we'll have to take 08:59
21 some of these things up later. Thank you very
22 much.

23 I'll pass to the next person.

24 THE WITNESS: Thank you, sir.

25 And let's see. It's -- can we jump right 08:59

1 into the next, or...

2 MR. HINES: Do you need a break or...

3 THE WITNESS: Well, I wouldn't mind
4 getting another cup of coffee.

5 MR. HINES: Fine by me. Go ahead. 08:59

6 THE VIDEOGRAPHER: We are going off the
7 record at 11:59 a.m.

8 (Recess taken.)

9 THE VIDEOGRAPHER: This is Media Number 2.
10 We are back on the record at 12:10 p.m. 09:10

11 EXAMINATION BY MR. HINES:

12 Q. Dr. Longo, my name is Jeff Hines. I
13 represent Perrigo of Tennessee. We met briefly
14 before. It's nice to see you again. I'm glad
15 you're in good health. 09:10

16 A. Good to see you, sir.

17 Q. Good to see you.

18 I wanted to ask you about your analysis of
19 Longs Baby Powder.

20 A. Sure. 09:10

21 Q. And it would be MAS Project M71303 and
22 M71309; is that accurate?

23 A. It is.

24 Q. I had those reports dated in April of
25 2021. I believe that's when you prepared them. 09:10

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1 Is that accurate?

2 A. Yeah. The report date is April 13, 2021.

3 And I have it in front of me, so anything
4 you want to go to, I can probably find.

5 Q. Okay. So have you done any additional 09:11
6 analysis of the 15 Longs Baby Powder bottles since
7 April of 2021?

8 A. I have not.

9 Q. Do you intend to do any additional
10 analysis prior to trial in this case? 09:11

11 A. No, sir, I have no -- nothing scheduled to
12 do any additional analysis unless I'm asked by my
13 client, and my client has not asked me. And I'm
14 assuming, since trial seems to be starting next
15 week, I will not get any requests to do any 09:11
16 additional analysis.

17 Q. Have you examined any other bottles of
18 Longs Baby Powder since April of 2021 other than
19 those set forth in your report?

20 A. Not that I recall. I certainly haven't 09:11
21 written any reports associated with Longs Baby
22 Powder.

23 Q. When I spoke to you in 2021, you indicated
24 that you were considering doing a TEM analysis, a
25 TEM analysis on the chrysotile features that had 09:12

1 been discovered. Have you done that?

2 A. No, sir, I haven't.

3 Q. Can you explain why you've chosen not do
4 that since 2021?

5 A. We have been working diligently, not -- I 09:12
6 mean, when we can -- on the research side of
7 things to come up with the most efficient -- when
8 I say "efficient," heavy liquid density separation
9 for the chrysotile.

10 We're getting closer and closer. You 09:12
11 know, what is the best heavy density liquid
12 material? You know, is it the -- is it the
13 material that everybody is using, the lithium --
14 or is, you know, methylene iodide a better one
15 because it's less viscous, and what is the best 09:13
16 heavy density liquid to use?

17 You know, we are now using 2.65, but we're
18 still finding stuff in the pellet. So we're
19 trying to get it so that --

20 And also, you know, trying to calculate 09:13
21 our detection limit so that we know what
22 concentration we have, such as -- you know, one of
23 our highest concentrations -- and I was looking
24 through here, you know -- is 0.012 or -13 -- yeah,
25 one zero -- or two zeros. 09:13

1 And I don't want to, you know, get caught
2 up in something like -- you know, we're -- you
3 know, Alan -- Mr. Segrave develops a standard; he
4 says it's, you know, 0.1 percent and "I can find
5 it all over the place by SEM." 09:14

6 Well, that's not the concentration we're
7 seeing, and it's not appropriate to use the 1866b
8 standard to make a standard. It's -- the only
9 thing that works is, really, the Calidria.

10 I guess that's the long answer for why we 09:14
11 haven't done TEM yet.

12 Q. Okay. Well, thank you very much. It was
13 a complete answer, and I do appreciate that.

14 Have you viewed any of the Longs product
15 in the 1.560 refractive oil? 09:14

16 A. We have not.

17 Q. And why is it that you have decided not to
18 do that?

19 A. Well, on April 13, 2021, we weren't
20 considering using 1.560. We have, you know, 09:14
21 easily, two months -- a month or two of work here,
22 to go back and do it in 1.560.

23 We have done other samples in 1.560, and
24 as predicted -- at least as I predicted -- you get
25 different -- you get a color change in 1.560, but 09:15

1 you do not get a change in, really, the refractive
2 indices.

3 We used 1.560 because I think in
4 Mr. Segrave's report back in April, he suggested
5 that we needed to do that. 09:15

6 Gunter has suggested that we needed to use
7 a higher refractive indice.

8 And then Dr. Su published a paper in a
9 journal called The Microscope on the second
10 quarter of 2022, and he said that you've got to 09:15
11 use -- he said a couple things.

12 He said, one, that the 1866b refractive
13 indices, you can't -- that's not going to be --
14 basically, he said you are going to have other
15 chrysotile minerals that have significantly higher 09:16
16 refractive indices than the 1866b, which I agree
17 with.

18 He also said you needed to use 1. -- you
19 need to use the -- the RI fluid needs to be in the
20 ranges that you're seeing. 09:16

21 We're seeing, you know, 1.560 up to about
22 1.570, so 1.560 is a -- is a good standard for
23 that. And we may go on to try 1.565, but I don't
24 know. Then we have to calculate our own
25 wavelengths -- I mean wavelengths and refractive 09:16

1 indices.

2 Q. So -- and I don't want to get in a debate
3 with you with color. I just want to ask you sort
4 of a general question.

5 It seems, especially with the Longs 09:17
6 report, that a lot of the color you're seeing with
7 regard to the chrysotile in -- in horizontal or
8 parallel has a yellow color to it. Would you
9 agree with that?

10 A. I would agree. Yellowish-gold. 09:17

11 Q. And I've heard you express that as being
12 Calidria-like. And my question to you, are you
13 saying that the chrysotile fibers that you found
14 in the Longs Baby Powder are Calidria?

15 A. No. Calidria is a trade name. 09:17

16 Q. But isn't Calidria from a particular mine
17 in California?

18 A. Yes. It's the Union -- it was -- used to
19 be the Union Carbide mine, and Calidria was their
20 trade name for it. It's chrysotile. I'm not 09:17
21 saying that it is Calidria. I mean, that's a
22 Union --

23 But, you know, we have used a UCC product
24 called SG-210 and SG- -- excuse me -- SG-210 and
25 RG-144. The SG-210 has an average size of about 09:18

1 10 microns in length. What we're seeing in these
2 cosmetic talcs, the average size is about
3 10 microns in length. The SG-210 in 1.550 will
4 give you this yellowish-gold color, and that was
5 verified by Dr. Mickey Gunter. 09:18

6 So when I -- so the SG-210 is a good --
7 is -- is -- gives us, really, what we're seeing
8 within a couple -- in the ranges of -- in 1.550,
9 we're seeing the same ranges of color in parallel
10 that we see in -- 09:19

11 (Audio interference and Reporter
12 clarification.)

13 THE WITNESS: -- the J&J.

14 And, of course, it has been highly
15 criticized. What, two and a half years now, 09:19
16 trying to dodge the tomatoes that have been coming
17 across about this -- that --

18 BY MR. HINES:

19 Q. Well, I don't have any tomatoes. I'm just
20 going to ask you a question. 09:19

21 A. I'm making light of the fact that there's
22 been a lot of criticism on this because it's not
23 magenta in parallel.

24 And we took a look at, what is the
25 difference? What is the difference here? Yeah, 09:19

1 there's some iron in the -- some iron in the --
2 but very little. And you can find iron -- you
3 know, these little bumps of iron in the SG-210,
4 and sometimes you don't.

5 So I think it has to do with the size of 09:20
6 the structure. I think --

7 We recently took 1866b, and we milled it,
8 and we have a -- we now have a liquid nitrogen
9 ball mill, so you can make the chrysotile
10 brittle -- it will grind up, which is very hard to 09:20
11 do -- and we get similar refractive indices;
12 1.560, 1.562, 1.559. As we're seeing -- and
13 what's the difference? The size. I believe the
14 size has an effect on it.

15 Now, Dr. Sanchez does not agree with that. 09:20
16 He says that's completely wrong.

17 Q. Let me see if I can -- let me see if I can
18 synthesize what you are telling me.

19 So a theory would be you could have a
20 chrysotile fiber, let's say of industrial size, 09:21
21 and if it was milled, in that scenario, it would
22 be -- all things being static, it would be magenta
23 color; right, Doctor?

24 A. An added product, a bundle -- you know,
25 you don't see, really, individual fibers in PLM. 09:21

1 They're too small. So you're seeing bundles.

2 Asbestos-added chrysotile bundles will give you
3 that magenta in the parallel.

4 Q. Okay. So I want you --

5 A. And Calidria would give you -- if you have 09:21
6 a bundle the size that you're seeing in these --
7 in these -- you know, these standards, like an
8 ISO, et cetera, I think it's going to be -- also
9 be magenta --

10 Q. Okay. And so during -- 09:22

11 A. -- if you have them that size.

12 However, as it gets smaller and smaller in
13 size, it starts going more to different color
14 refractive indices.

15 It has to be a size or there's something 09:22
16 else different about the chrysotile we're finding
17 in cosmetic talc which matches the refractive
18 indices ranges that we see in the Calidria.

19 Q. Okay. Now, you were -- you had mentioned
20 Dr. Sanchez had some criticisms of your position 09:22
21 in this area.

22 Has anyone, to your knowledge, written a
23 scientific paper where this theory or observation
24 by you has been published and set forth in some
25 scientific journal? 09:23

1 A. Not that I know of, not that I can find,
2 that anybody has come up with this theory on the
3 size.

4 But I do see one thing that gives me
5 pause, is if you look at some of the -- if you 09:23
6 look at the Michel-Levy charts for determining the
7 birefringence, one of the parameters is the
8 thickness, the height of what are you looking at.

9 Now, there's -- you know, some people say
10 there's reasons for that and you're doing -- 09:23
11 looking at something different, et cetera, et
12 cetera, but it does have a height.

13 If you look at, for example, the 22261- --
14 22262-1 and go to the, quote -- oh, where is it?
15 We see it all the time. 09:24

16 You know, this picture keeps coming up
17 over and over, on page 43, where it has SR- -- in
18 Figure D3, SRM 1866 chrysotile in 1.550.

19 And if you look at all the bundles going
20 through there, not every one of them is magenta. 09:24
21 You have a yellowish-whitish one going right
22 through the -- if you were to -- if you were to
23 take the main bundle and go down just a few
24 smaller bundles, that's a different color.

25 Q. Okay. 09:24

1 A. And if you look over in the -- in the
2 perpendicular, you can see that we have a -- kind
3 of a purplish -- we're out of the blue range in a
4 couple of those. Well, why is that doing that?
5 Sanchez says because it's out of focus. Well, it 09:25
6 doesn't look out of focus to me. It looks like we
7 have a thickness issue.

8 Q. So do you intend to publish any scientific
9 theory -- I'm sorry -- scientific paper espousing
10 this theory? 09:25

11 A. You bet.

12 Q. And are you currently --

13 A. I think I've got too much data that shows
14 this. We have --

15 Q. Are you -- have you -- I'm sorry. I 09:25
16 didn't mean to cut you off. Excuse me. Go ahead.

17 A. That's okay. I'm talking too much. I'm
18 wasting your-all's time, I think, at some point.

19 Q. No, no, no. You're not wasting my time.
20 I enjoy talking to you. My first bad grade in 09:25
21 college was geology, so this is hard for me.

22 So it is true, is it not, that nobody in
23 your field has written a scientific paper where
24 this theory has been addressed, either positively
25 or negatively? 09:26

1 A. On the thickness?

2 Q. No. On your position that short
3 chrysotile fibers under certain circumstances will
4 have a yellowish color.

5 A. You know, I have not published it, you 09:26
6 know, and neither had a manuscript accepted or
7 rejected on the finding of chrysotile in cosmetic
8 talcs.

9 Now, has somebody else out there published
10 it? I'm not sure anybody has really looked at 09:26
11 this before, because most everything you see is
12 asbestos-added products and, you know, there's
13 really no dispute there about the chrysotile.

14 Q. So there are other people in your field
15 that analyze minerals and try to do the same type 09:27
16 of job you do; correct?

17 A. I don't know if there's other people, one
18 way or the other, doing the same type of job I do.
19 You know, there's a lot of contract labs out
20 there. Our lab is more of a, "Well, let's figure 09:27
21 out why."

22 Q. Right. Well, you jumped to the -- you
23 jumped to the answer before -- the second answer
24 before I got my first answer, which was, there are
25 other people -- other mineralogists out there that 09:27

1 perform the same or similar services to you;
2 correct?

3 A. Yeah. There's a whole bunch of contract
4 labs out there --

5 Q. Okay. And you don't know -- sitting here 09:28
6 today, you don't know whether any of those
7 contract labs or other people in your field
8 espouse this same -- what I am going to call
9 Calidria theory that you have, do you?

10 MR. REID: Counsel, be sure that you allow 09:28
11 the witness to fully respond. There's not going
12 to be any more interruptions. All right?

13 Go ahead.

14 MR. HINES: Well, I'm going to ask my
15 questions, and you put in your objection. 09:28
16 BY MR. HINES:

17 Q. But go ahead.

18 MR. REID: No. It's going to be --

19 MR. HINES: You've done your objection.
20 You've done your objection. 09:28

21 MR. REID: Counsel -- Counsel --

22 MR. HINES: You've done your job. Move
23 on.

24 MR. REID: Counsel -- Counsel, if you
25 continue to interrupt the witness, I will suspend 09:28

1 the deposition and get a discovery ref.

2 MR. HINES: Good. Good.

3 MR. REID: Good.

4 BY MR. HINES:

5 Q. So can you answer the question, Dr. Longo? 09:28

6 A. I can. I do know -- he's not a contract
7 lab -- Dr. Mickey Gunter -- by Court order, we
8 sent him Calidria -- we sent him SG-210 chrysotile
9 and RG-144 chrysotile from Union Carbide. And in
10 1.550, he said that he was getting in the parallel 09:29
11 direction yellowish-gold colors.

12 Also, we sent him -- we have -- we took
13 some photographs of Calidria in -- I don't -- I
14 keep calling it Calidria -- of SG-210 chrysotile
15 in a bentonite that was spiked into a bentonite 09:29
16 matrix.

17 And those perpendicular -- excuse me --
18 parallel photographs were shown to Dr. Gunter, and
19 he said that that was talc plates on edge, even
20 though as far as we can tell, there is no talc in 09:30
21 the Calidria SG-210, at least not that we've been
22 able to find.

23 And Dr. Gunter, who I've been told wrote
24 five books and has been doing this for ages, said
25 that there is no talc in the -- in the Coalinga 09:30

1 mine.

2 So this is something I don't think people
3 have -- other PLM analysts really have taken into
4 account. They see yellow, and they automatically
5 say it is fibrous talc. And it's not. They don't 09:30
6 take into account the birefringence.

7 Q. So, Dr. Longo, when I was listening to
8 some of your earlier deposition testimony in this
9 case, there was some testimony that came out about
10 how you had updated your PLM equipment and were 09:30
11 now utilizing the new equipment. And you
12 explained it and did a nice job of explaining it.

13 My question to you: Was that equipment
14 that you are using now the same equipment that you
15 used in April of 2021 to analyze the Longs 09:31
16 product?

17 A. I would say yes, I believe so.

18 Q. And what is the product that you are using
19 now when you analyze particles under PLM?

20 A. Well, it's a Leica PLM microscope that has 09:31
21 LED, has high-resolution camera built into it,
22 goes to a monitor.

23 But it does -- it did have a -- yeah,
24 these are some of the first ones, because it had a
25 glitch that nobody caught, including me. The 09:32

1 micron bars on it should say -- should be 1 --
2 should not be 100 microns but should be
3 10 microns. Kind of interesting.

4 But that must be one of the first samples
5 we did here, and I can't believe that got by me 09:32
6 when I did the QC on this thing.

7 Q. Am I correct that when you did your Longs
8 powder analysis, you did not find any grunerite?

9 A. That's correct.

10 Q. And you didn't find any richterite? 09:33

11 A. I think the only thing -- the only
12 amphiboles we found were tremolite.

13 Q. Okay. So you wouldn't have found any
14 winchite either?

15 A. No, sir. 09:33

16 Q. So I'm going to put up on the screen
17 some -- just -- I'm not going to go through your
18 whole report. I just want to put an exemplar up
19 so that we -- I can sort of understand your
20 testimony. 09:33

21 So let me --

22 MR. HINES: Does everybody have that.

23 THE WITNESS: Section 8.

24 BY MR. HINES:

25 Q. Okay. All right. 09:34

1 A. Let me see what Section 8 is. And I'll
2 get to it.

3 Section 8, I don't have on here. Okay.
4 Section 8. Let me get to Section 8.

5 Section 11... 09:34

6 Section 8.

7 Q. Okay. And if what's on the screen doesn't
8 match what you are looking at, please let me know.
9 It's been --

10 A. Sure. 09:34

11 Q. -- no attempt on my part to thwart your
12 analysis, but -- I think we copied the pages
13 correctly.

14 So what I'm looking at, I'm looking at --

15 A. That's the right page. 09:34

16 Q. Okay. And just for the record, we're
17 going to identify that as M71309-002ISO, and we
18 are talking about a powder that was received from
19 Dora Hayes; correct?

20 A. Correct. 09:34

21 Q. And the temperature of the lab on that
22 particular day was 21 degrees?

23 A. Correct.

24 Q. And under optical data for asbestos
25 identification, I want to go down to the alpha and 09:35

1 the gamma.

2 Do you see that, sir?

3 A. I do.

4 Q. And then you have 630 for alpha and 450

5 for the gamma; is that correct?

09:35

6 A. Well, for gamma, we have a range of 1.558

7 to --

8 Q. No, I understand that, but I want to just

9 stay -- I'm trying to find out what the reason was

10 for putting 630 and 450 in that particular

09:35

11 location.

12 A. Oh, that's the alpha and gamma nanometers

13 wavelengths range for all the -- you know, for all

14 the different ones that we've done for this

15 particular sample. So --

09:35

16 Q. Okay. So -- go ahead.

17 A. So we put -- okay, our alpha was 630, and

18 our gamma was 450. That would be the highest and

19 the lowest.

20 Q. Okay. All right. So I want to go down a

09:36

21 little bit lower. And you've got comments. These

22 comments are made by Mr. Hess; is that correct?

23 A. Correct.

24 Q. And he's identified 28 chrysotile

25 structures?

09:36

1 A. Correct.

2 Q. And he's identified those structures as to
3 having a gamma range between 1.558 to 1.568?

4 A. That's -- that is the range.

5 Q. Okay. And the same thing with alpha, from 09:36
6 1.549 to 1.557?

7 A. Yes. And you can see that's the 630. If
8 you go up there, that's the -- that would be
9 the -- the alpha, the lowest alpha, and -- and
10 then the range -- so he has a range there from 630 09:37
11 to -- on alpha to 540.

12 Q. So I'm looking -- I'm trying to show you
13 now a picture of a chrysotile talc particle. It's
14 M71309-002ISO-001. So we're dealing with talc
15 chrysotile fiber 001; is that accurate? 09:37

16 Is that accurate? I can't see you, so...

17 MR. REID: Bill, you somehow got muted.

18 MR. HINES: How did I get muted? Hold on.

19 THE WITNESS: Okay. How did I get muted?
20 I didn't think I touched anything, but who knows. 09:38
21 Can you hear me now?

22 MR. COWAN: Jeff, now you're muted.

23 MR. HINES: I can hear you now. I didn't
24 know -- when Michael chimed in we were muted, I
25 thought he was saying I was muted. So that's 09:38

1 why I took down the exhibit.

2 MR. REID: No, no. I was saying Bill was.

3 THE WITNESS: Sorry about that. I don't
4 know what I hit.

5 Okay. So -- 09:38

6 BY MR. HINES:

7 Q. Okay. So let me ask you a question, then,
8 because I've shared the screen.

9 Do you see what I have marked out there as
10 M71309-002ISO-001? 09:38

11 A. Correct.

12 Q. So I just want to understand how Mr. Hess
13 does his analysis. Does he look at the color of
14 the part that's marked chrysotile, which is the
15 green arrows, and go to some type of index to 09:39
16 determine what nanometer he's seeing that color
17 at?

18 A. Yes.

19 Q. And what did your office do in 2021 to
20 ascertain that color -- I mean -- I'm sorry -- to 09:39
21 ascertain that nanometer?

22 A. Well, we have a, you know, visible
23 spectrum on light that ranges from about 300 --
24 200, 300 nanometers on the high side all the way
25 down to, like, 800 to 900 nanometers, and then it 09:39

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1 has a color range.

2 If you're up around the 400 to 425 or
3 whatever, you have yellow, and if you get down to
4 the 800 range, you will have the very -- you will
5 have light blues, if I recall correctly. And then 09:40
6 you look at that, and you make a decision on
7 whereabouts your color range is hitting.

8 So the 1.5, you know, RIs are -- the
9 chrysotile RIs are on the parallel from 64 to 68,
10 so you are going to have yellowish-reddish colors 09:40
11 there. And then you look at the talc, that's
12 almost white.

13 Q. Okay.

14 A. That means you're off the spectra. So
15 it's got to be greater than 1.590. 09:40

16 And you are looking at exactly why this is
17 not misidentification of talc, because the
18 birefringence is way too high to be confused with
19 chrysotile.

20 Q. I want to go down a little bit further. 09:41
21 That's --

22 A. Yeah, now we're looking
23 at perpendicular --

24 Q. No, I don't want to -- I understand that,
25 Doctor. I'm trying to go through a little 09:41

1 quicker. I understand about that particular
2 screen.

3 In this particular screen, which we're
4 still examining particle 1 but it's the elongation
5 view -- are you there, Doctor? 09:41

6 A. Yeah, I'm looking at it.

7 Q. Okay. So how does the elongation view
8 help you determine whether something is chrysotile
9 as opposed to talc?

10 A. Well, the first thing we do is we look at 09:41
11 the difference between the two. You can see the
12 talc section. You've got blues under it.

13 So you've got thickness there. So now
14 you're getting in the second and third order for
15 the talc side, and when the -- second and third 09:41
16 order, maybe a little in the first order from the
17 Michel-Levy charts.

18 And, also, looking at the structure here,
19 it's not typically what we see, and again -- but
20 we don't do this in a vacuum. We also look at the 09:42
21 perpendicular.

22 So the elongation is telling us that at
23 least on the chrysotile side, we have a slow
24 length. So we have positive elongation. And that
25 thickness of that particular side on the talc, 09:42

1 which is -- when you have a blue around it, also
2 it's in the positive elongation.

3 So just looking at the elongation by
4 itself, no. I would want to see the refractive
5 indices, too, to differentiate the two. 09:42

6 Q. Are you finished, sir?

7 A. Yes.

8 Q. Okay. So I want to go down a little bit
9 further. And this is giving us a different view
10 of the same fiber on cross polars. How does cross 09:43
11 polars --

12 A. Cross polars, now we are looking -- I look
13 at a lot of structure. If -- at least if -- on
14 the chrysotile end, you're seeing individual
15 bundles, it's fibrous, and then it starts morphing 09:43
16 into the talc end, where the chrysotile end on
17 this is, again, second order -- second order
18 colors, where the talc end is up in your -- my
19 opinion, in your third order color.

20 So you're seeing a difference in the -- 09:43
21 the interference colors here.

22 Q. Okay. Anything else?

23 A. That's it.

24 Q. Okay. And I want to go down here to see
25 the -- with the polarizer out. How does this 09:43

1 assist you in making a determination as to what is
2 chrysotile and what's talc?

3 A. If you look at the talc end, you're going
4 to see individual bundles making up this big
5 bundle, where you go over to -- I mean the 09:44
6 chrysotile end. Excuse me. I think I said "talc
7 end" -- you see the talc end, you've just got
8 mostly straight, you know, platy structures, in my
9 opinion.

10 So you get the morphology here. And 09:44
11 because of the size of it, you are not going to
12 get splayed ends that people typically use for
13 asbestos-added products.

14 So that's -- that gives a good example of
15 a chrysotile talc intergrowth bundle. 09:44

16 Q. And what do you mean by "intergrowth"? Is
17 it the same -- is it the same particle, or two
18 particles have formed together? Could you
19 elaborate on that, please. I don't understand it.

20 A. "Intergrowth" means you're getting a 09:44
21 metamorphic process, where the chrysotile is
22 metamorphing into a fibrous talc-type structure,
23 what I would call a fibrous talc structure, versus
24 talc plates on edge, or a complete fibrous talc
25 structure. 09:45

1 Q. This is the second particle. I want to
2 jump ahead to another exhibit.

3 So this is Exhibit --

4 MR. HINES: What's the next exhibit? I
5 should have marked the first one and then marked 09:45
6 this one, so what were the next two numbers?

7 THE REPORTER: I think the last one was
8 41, so we're on 42.

9 MR. HINES: Well, did you -- the
10 first doc- -- well, I want to -- let me go back. 09:46

11 So we were looking at this document right
12 here, which is an excerpt from his report. I
13 wanted to mark that. Would that be 41?

14 THE REPORTER: The last one was 41, so
15 this one would be 42. 09:46

16 MR. HINES: Okay. So this is 42.

17 (Whereupon, Defendant's Exhibit 42 was
18 marked for identification.)

19 BY MR. HINES:

20 Q. So, Doctor, what I have done is, I've 09:46
21 broken out from 41 the TEM analysis for that
22 particular powder. So we're still dealing with
23 Jane (sic) Callan's fiber -- actually, I mean, the
24 analysis is being done by Jane Callan, but we're
25 still dealing with the fiber that we just talked 09:47

1 about.

2 A. Can you make that a little bigger so I can
3 make sure I'm on the right thing?

4 Q. Yeah. Let me see.

5 A. I just don't want -- I just want -- 09:47

6 Q. Yeah, this would have been -- this is
7 still Dora Hayes' analysis.

8 A. Number 002; is that right?

9 Q. Yeah, 002.

10 A. Okay. I've got it. 09:47

11 Q. Okay. And I tried to make it a little bit
12 better for you. Okay?

13 A. Okay.

14 Q. So just running through, this is the fiber
15 that was identified? 09:47

16 A. Well, it's a bundle --

17 Q. Okay.

18 A. -- fiber.

19 Q. Well, that's sort of my question to you.

20 First, a couple questions. 09:47

21 Do you agree that there's a distinction
22 between asbestos-form tremolite and
23 nonasbestos-form tremolite?

24 A. Yeah, I agree.

25 Q. And you would agree that nonasbestos-form 09:48

1 tremolite is not considered harmful to human
2 beings?

3 A. Well, that's out of my pay grade. I don't
4 testify --

5 Q. Okay. 09:48

6 A. -- about that.

7 But I think there's -- you know, there is
8 science on both -- there's other experts that
9 don't have that opinion.

10 But I don't try to define it as harmful or 09:48
11 not harmful. We just identify it, if it's there
12 or not.

13 Q. Right. And so in this particular case,
14 you're looking at a fiber --

15 A. No. Bundle. 09:48

16 Q. -- a tremolite -- a bundle -- a tremolite
17 bundle and making a determines as to whether it's
18 asbestos-form or not; is that accurate?

19 A. Well, I have to make -- I make a
20 determination, does it meet the criteria for 09:49
21 regulated tremolite asbestos and all the TEM
22 protocols?

23 And this particular one does because it
24 has substantially parallel sides, it's greater
25 than .5 microns in size, and it's greater -- and 09:49

1 it has -- and it has --

2 (Audio interference.)

3 THE WITNESS: It says I have an unstable
4 Internet. Can you hear me now?

5 THE REPORTER: Yeah. 09:49

6 THE WITNESS: Let me turn up the volume.

7 It has substantially parallel sides, and
8 it's a bundle; that's regulated asbestos. And
9 being a bundle, by definition, is asbestiform.

10 BY MR. HINES: 09:49

11 Q. And can you give me a layman's description
12 of a bundle?

13 A. More than two fibrils touching each other.
14 This one has multiple ones.

15 Q. And is there a way of looking at this 09:50
16 picture where someone with your expertise can
17 determine that you have fibrils touching each
18 other?

19 A. Well, if you start at the bottom, you can
20 see -- this looks like a ledge. 09:50

21 Q. And I'm going to use my cursor just so I
22 understand. Is this the ledge?

23 A. Right there, when you get there -- so that
24 shows you that you -- that you have a space and
25 then a fibril. 09:50

1 If you look at the top, on the right-hand
2 side, you can see that there is different
3 structures there running down.

4 Now, we are looking at a TEM, but this
5 is a -- this is a very -- this is a thick bundle, 09:50
6 so there's a lot of fibrils in there. And that's
7 why you have -- in TEM, is why you have a 5-to-1
8 aspect ratio, because a lot of times, you can't
9 see through the bundle to get the individual
10 fibrils like you do with PLM. 09:51

11 I know there's experts out there that say,
12 "Okay, well, this isn't 20-to-1, so it can't be
13 asbestiform." Well, that's not how you look at
14 it. If I were to take some of those fibrils and
15 just measure them independently, I'd easily get 09:51
16 over 20-to-1, like you would do that.

17 But since you don't -- you can't see
18 through a lot of these bundles, that's why they
19 make it 5-to-1, versus the counting rules. At
20 least in the appendix for the R-93, it has to be 09:51
21 greater than 10-to-1 -- or 10-to-1 and greater.

22 Q. I'm going to go down -- are you finished?
23 Because I don't want to cut you off.

24 A. Yes, I'm finally finished. No, I'm
25 finished. 09:51

1 Q. So I'm going to go down. And what is
2 this -- what is this test here?

3 A. This is called -- depending if you
4 are old- school -- EDS, energy-dispersive
5 spectroscopy, or EDXA, energy-dispersive x-ray 09:52
6 analysis.

7 So you are looking at the inorganic
8 chemistry in this particular case, and what we
9 look for is the magnesium/silicon/calcium ratio,
10 about what you see there, which tremolite asbestos 09:52
11 is the only amphibole out there that I know -- or
12 any mineral out there that has that ratio of
13 magnesium, silicon, and calcium.

14 Q. Is it accurate that if you were doing this
15 EDS test -- it's easier for me to say, so I'm 09:52
16 going to use that -- if you were using this EDS
17 test on nonasbestos-form tremolite, you would get
18 the same result as you get -- what's appearing on
19 the screen?

20 A. Yes, there is no difference between the 09:52
21 two. What some people are calling
22 nonasbestos-form or cleavage fragments has the
23 exact same chemistry, the exact same crystalline
24 structure, and the exact same surface -- surface
25 energy. 09:53

1 Q. What test is this?

2 A. This is just a -- it's called SAED, or
3 selected area electron diffraction, and alls we're
4 doing is looking to see if it has the range of a
5 typical amphibole tremolite diffraction pattern 09:53
6 for the spacing between the atomic layers.

7 So you take one -- one row of dots that
8 are kind of running at a, you know, 40-degree
9 angle, and that space between them is measured in
10 nanometers, and then it's checked to -- if it's 09:53
11 got the tremolite amphibole range.

12 Q. Would a nonasbestos-form particle
13 present -- of tremolite present in the same way if
14 the SAED test was used?

15 A. Yes. 09:54

16 Q. So I'm going to go down to -- what I've
17 attached to these are some additional fibers from
18 some -- they're not -- and you can see that
19 they're named here 003-001. They're actually from
20 a different bottle of Longs product. 09:54

21 But these are the pictures in which you've
22 identified as tremolite, so I just want to go
23 through these and have you identify why you
24 believe under these images that they show
25 asbestos-form tremolite. Okay? 09:54

1 A. Well, this is -- let me see what this one
2 is. 003?

3 Q. Yeah, this is --

4 A. Let me just find it.

5 Q. This is Gary Godfrey's. 09:55

6 A. Well, it's easier for me just to find 003.

7 Is that S71303-003? Because I can't see
8 it.

9 Q. It's M71309-003-001.

10 A. Ah, I see. Let's see. Okay. 003... 09:55

11 Okay.

12 Q. All right. Can you do the same thing you
13 did with me before? Can you explain to me why you
14 believe this fiber, 003-001, is asbestos-form
15 tremolite? 09:56

16 A. One, we have parallel sides. We have --

17 Q. And that's this right here, up and down;
18 right?

19 A. That's a single fiber.

20 Q. Okay. 09:56

21 A. It's got parallel sides. Doesn't show
22 any -- when we see cleavage fragments, they don't
23 have parallel sides. They're like pie -- you
24 know, a piece -- a slice out of a pie, et cetera.

25 And it's got an overall aspect ratio of 7 09:57

1 to 1, I think it is, or, you know, 7.2 or .3 to 1.
2 And, of course, it has the same chemistry and the
3 same --

4 Q. Right.

5 A. -- as -- 09:57

6 And, also, the tremolite we have found --
7 I think it's seven structures total -- or eight
8 structures total; seven of them are bundles, and
9 we have one fiber -- that's regulated asbestos.

10 And if this is all coming -- you know, so 09:57
11 this shows it's coming out -- the mine source is
12 here -- same mine sources show that the majority
13 of what we're seeing is bundles. And bundles, by
14 definition, are asbestiform.

15 Q. What you're telling me is even though this 09:57
16 is a single fiber, it meets the definition for
17 regulated asbestos in any event?

18 A. Well, it's regulated asbestos. And if
19 it's asbestiform or not, I guess it depends on who
20 you ask. 09:58

21 Q. Well, I'm asking you. You say
22 asbestiform; right?

23 A. It's -- I said, in my opinion, this
24 fibrous structure here of tremolite is asbestiform
25 because if you go to the classic definition of 09:58

1 asbestiform, it's fibrous-like asbestos.

2 Q. All right. Are you finished? I'm going
3 to go down a little further.

4 A. Yes, I'm finished. What's the next one?

5 Q. Next one is -- this is 005, fiber 1. 09:58

6 A. 005.

7 Q. And on all of these, Doctor, I -- I agree
8 that the SAED and the other analysis indicated
9 that it was tremolite.

10 A. Yeah, okay. 09:59

11 So this is a fairly large bundle. Are
12 we --

13 Q. This is -- okay.

14 A. 20-to-1. This is a fairly long bundle.
15 It's got a length of 42.1 and a width of 2.2, 09:59
16 ratio of 19.1.

17 And I would have to be sitting at the
18 microscope, but a 2.2, 42.1 -- it's got
19 substantially parallel sides, but I would need to
20 be sitting at the microscope to look at this, 10:00
21 because you've got to get it in and out of focus
22 to see the -- to see the edges more than I can see
23 here. I can see that this picture is taken a
24 little bit out of focus.

25 Q. So it's my understanding, when you look at 10:00

1 the report, that a woman that -- employed with you
2 did the TEM analysis. Is that accurate?

3 A. No. This was done by Jayme Callan. He's
4 still here.

5 Q. Oh, I'm sorry. I thought Jayme was a 10:00
6 woman. I'm sorry. I apologize.

7 A. He's sensitive --

8 Q. Did you reconfirm his opinion that this
9 was asbestos-form tremolite by looking under a
10 microscope at the time the report was generated? 10:01

11 A. No. I can see the parallel sides on this
12 and the length of this. This is asbestiform. And
13 I can see little areas that, you know, show me
14 that there's bundles in there.

15 But sitting here with this photograph and 10:01
16 trying to show you where or not, I guess I can
17 give it a try.

18 On the right -- on the left-hand side,
19 starting from the bottom and going up, on the top
20 you can see how it's almost like a little shelf 10:01
21 that goes in. That would be the first structure.

22 But to go, "Okay, here's where this is,
23 and here's where that is," I would need to sit at
24 the scope and go more -- but, you know, this is a
25 very -- very experienced SEM -- excuse me -- TEM 10:01

1 analyst. He's been with me for a number of years.

2 I have no doubt about his ability, but...

3 So no buts. No, these are all

4 asbestiform, in my opinion.

5 Q. Okay. So my question to you, Dr. Longo, 10:02

6 is: After your technicians provided their TEM

7 analysis, did you go back and actually look at the

8 particles under the microscope to confirm their

9 finding?

10 A. I do that from time to time. Did I do it 10:02

11 here? It's -- if I had gotten deposed when these

12 were first done, I could have told you that,

13 either "yes" or "no," but I can't recall now.

14 It's been too long. Because I'm always constantly

15 being asked, "Is this asbestiform or not?" The 10:02

16 fact that it is sitting here in this report, I

17 would say yes.

18 Q. So you routinely go back and re- -- look

19 at the TEM particles that have been identified as

20 asbestos? That's what you routinely do? 10:02

21 A. Well, this -- you know, we're -- this is

22 two different things. This meets all the

23 definitions of regulated asbestos for all the

24 different TEM protocols that there is out there.

25 It's got the right chemistry, got the right 10:03

1 diffraction pattern. It's got the right size.

2 What we're debating now is this definition
3 of asbestiform. This is fibrous-like asbestos.
4 It was classified as a bundle. So to me, you
5 don't have to debate this whole asbestiform thing. 10:03

6 And -- you know, and my opinion about this
7 "It has to be 20 to 1, it has to be this, it has
8 to be that" is, to me, it's just made up to make
9 it nonasbestos.

10 Q. Okay. But to determine whether something 10:03
11 is an asbestos-form fiber, you are following the
12 definitions that have been set out in the
13 literature; are you not?

14 A. Well, we have to go on what definitions
15 are we talking about? What I am following is what 10:04
16 the various government agencies, like the
17 Environmental Protection Agency or the ASTM or the
18 International Standards Organization -- what their
19 definition is of asbestos, which is more
20 restrictive than NIOSH's or OSHA's definition of 10:04
21 asbestos.

22 So you have to tell me what definitions
23 are we talking about in the literature, because
24 there's a myriad of them.

25 Q. Well, I think you just answered the 10:04

1 question as to what standard you use.

2 But let's move on, because I have to pass
3 you to other people.

4 A. Okay. That's fine.

5 Q. This is another fiber, which is -- this is 10:04
6 006. This is Rodney Fong's tremolite fiber. Once
7 again, on the SAED test, you know, it met the
8 definition of tremolite, so we are not debating
9 that. Can you explain to me why you believe this
10 is an asbestos-form tremolitic fiber? 10:05

11 A. Well, if you start on the -- start on the
12 right-hand side, you can see that there is a
13 single -- that is about .4, maybe. And then right
14 next to it, on the top, you've got a single --
15 what I call a single structure going down. That's 10:05
16 about .2. And that -- if you just took that
17 one --

18 And if you get to the other end, some
19 people would think that's down to a point, but
20 that's actually individual structures that make up 10:05
21 that. You know, it's, like -- it's not a needle.
22 At higher mag, you can actually see that it steps
23 up.

24 And if we were to take that single one
25 going down the side, which is going to be 10:06

1 approximately 6 microns, 7 microns divided by
2 about .2 -- .10 would be 60; .2 would be 30 -- you
3 get a 30-to-1 aspect ratio in the fiber.

4 But this fiber -- you know, this bundle by
5 itself gives us a 19.4 aspect ratio. 10:06

6 Q. Have you articulated your opinion?

7 A. Yes.

8 Q. This is another fiber from 002 -- I
9 mean -- I'm sorry -- from 006, which was the
10 Rodney Fong bottle, but this is fiber 2. 10:06

11 A. Well, this is -- this is a bundle, I
12 think. Let me see what -- I would have called it
13 a bundle. See if I am wrong.

14 Nope. Bundle. Same thing. You've got --
15 you've got parallel sides, and you -- at least on 10:07
16 mine, I can see at the bottom of this, this is .8.
17 Tremolite usually runs about .2 to .3 for single
18 fibrils. And you can see some density difference
19 going -- going across. And then you have a
20 step-down on the other end and a 19.4 aspect 10:07
21 ratio.

22 I would call that -- it meets all the
23 definitions for regulated asbestos for tremolite.
24 And depending on whose definition you use for
25 asbestiform -- I would say that's asbestiform 10:07

1 because it's fibrous-like asbestos.

2 Q. And this is the final group of fibers.
3 This is from Joann Scherich, her bottle, and it's
4 marked 1309-008 and this is fiber 1.

5 A. Oh, got three in here. 10:08

6 Q. Yeah, there are three fibers.

7 A. So we have three bundles. Again, you
8 have -- you have -- at the very end, at the right,
9 you can see some individual fibrils. This is .86,
10 so I would say that is consistent. Again, a 10:08
11 bundle. Regulated asbestos, tremolite. And
12 even -- because it's a bundle, I don't think
13 people argue that it's -- well, they probably
14 do -- that this is, quote, asbestiform, unquote.

15 Q. Okay. Are you finished, sir? 10:09

16 A. Yes, sir.

17 Q. I'm showing you a second fiber. Can you
18 tell me in your book whether the picture of this
19 fiber has the arrow that you see on the screen?

20 A. Yes, it does. 10:09

21 Q. Do you know why the individual that did
22 this would have put an arrow on the screen?

23 A. That's Jayme Callan. Yes, I know why.

24 Q. Can you tell me --

25 A. Sure. 10:09

1 Q. -- please?

2 A. Because if I didn't have that arrow on
3 there, I would just want to make sure which of
4 these two fibrous structures he was analyzing,
5 that one -- 10:10

6 Q. Okay.

7 A. The one on top. So I will typically --
8 this is a little bit extreme. I could have
9 figured it out by the size. But he's, I think,
10 just got a little paranoid that I was going to 10:10
11 come back and say, "Which one is these?"

12 Q. Okay. Can you explain to me why -- this
13 is a bundle, in your opinion; is that correct?

14 A. Yeah. It's a thick one. It's .9. But,
15 again, it's -- I can see -- on the bottom 10:10
16 left-hand corner, I can see little structure
17 there. That signifies to me that there's some
18 fibrils in this. But, again, we're dealing with
19 the thickness of the -- of the structure.

20 Q. Can you help me out -- I'm sorry. Go 10:10
21 ahead. I didn't mean to cut you off.

22 A. No, I'm done.

23 Q. Go ahead.

24 So you said in the bottom left-hand
25 corner, and I'm a little confused. 10:11

1 A. I'm sorry. Bottom right-hand corner.

2 Q. Bottom right-hand corner?

3 A. Bottom right-hand corner. Right where
4 you've got the little hand, but just move it over
5 to the -- 10:11

6 Q. Yeah, okay. All right.

7 A. I misspoke. I apologize.

8 Q. No, no problem.

9 And this is fiber 3, same thing, from
10 -008. 10:11

11 A. Yes.

12 Q. Can you explain to why you find that
13 this -- what this is? Is this a bundle? Is this
14 a fiber? What is it?

15 A. This is a bundle. And you can actually 10:11
16 see -- on the top right-hand side, you can see
17 individual fibrils protruding from that.

18 And then on the bottom left-hand side, all
19 the way to the bottom on the left-hand side, you
20 can see bundle -- you can see individual 10:11
21 fibrils -- or bundle -- little bundles, depending
22 on the thickness, protruding from the --

23 Q. Right here where my cursor is?

24 A. Yeah, right there.

25 Q. All right. So, like, right above the 1.9 10:11

1 in the middle of the bundle, you see some fibers?

2 A. Yeah. I think they may be a little bigger
3 than the typical fibrils. They may be -- you
4 know, I can't quite see.

5 But if you go to the very top, that's 10:12
6 pretty close to .2, .3, and you know -- 1, 2, 3,
7 4, 5, 6, 7 -- that gets pretty close to what the
8 typical size or width of a tremolite fiber is.

9 MR. HINES: All right. I'm going to pass
10 you now. I appreciate the time, once again, to 10:12
11 speak with you, Dr. Longo. It's always enjoyable,
12 and --

13 THE WITNESS: Good to see you.

14 MR. HINES: -- maybe I'll see you next
15 week. 10:12

16 MR. DUBIN: Should we take our next break
17 now, five minutes, since we are switching
18 examiners?

19 THE WITNESS: Yes, that would be great.

20 MR. DUBIN: I may call in on a different 10:13
21 device.

22 THE VIDEOGRAPHER: We are going off the
23 record at 1:13 p.m.

24 (Recess taken.)

25 THE VIDEOGRAPHER: This is Media Number 3, 10:24

1 and we're back on the record at 1:24 p.m.

2 EXAMINATION BY MR. RISING:

3 Q. Hi, Dr. Longo. How are you?

4 A. I'm fine, sir. How are you doing today?

5 Q. Good. We haven't met before. I'm Kevin 10:25

6 Rising. I will be representing Longs at trial. I

7 will probably see you in the Eagles trial. I'm

8 here today to ask questions on behalf of all the

9 retailers, so Longs, Lucky, and Safeway. Okay?

10 A. That's fine. 10:25

11 Q. And are you available for trial next week?

12 Are you going to -- are you planning to appear,

13 and we are going to meet you in person?

14 A. Yes, sir, I plan on appearing. Typically, 10:25

15 if I can't appear, it would have to be something
16 serious has happened to me, which would be bad for
17 everybody, I think.

18 Q. And so what -- you planning to appear on

19 Wednesday? When are you traveling out to

20 California? 10:25

21 A. Well, it's always hard to predict because

22 every day seems to be a new issue about when,

23 actually, the -- when they need me; you know, how

24 long does it take to put the jury in the box, so

25 to speak. 10:26

1 My understanding is it could be sometime
2 from Wednesday to Friday --

3 Q. Okay.

4 A. -- or the following Monday. I don't know.

5 Q. You're available any of those times? 10:26

6 A. Not usually. I have to start -- you know,
7 a lot of begging has to be done --

8 Q. All right. Well, I look forward to seeing
9 you --

10 Sorry, go ahead. Go ahead, Dr. Longo. 10:26

11 A. Yes. Typically not, because you set these
12 dates aside, and then other dates fill up, as you
13 know, and then you have to start moving chess
14 pieces around.

15 But right now, I was able to move things 10:26
16 around to have Wednesday through Friday. So I
17 don't know about next week.

18 Q. Okay. So maybe we'll see each other next
19 week in suits.

20 A. May be. 10:27

21 Q. Okay. I'm going to focus on the store
22 brand exposures, but I want to just kind of, just
23 to set the table here, make sure what you are not
24 offering opinions regarding. Okay?

25 A. Sure. 10:27

1 Q. You haven't done any calculations for the
2 number of containers of Johnson's Baby Powder
3 purchased at any individual retailer; correct?

4 A. Correct.

5 Q. And you're not going to be offering any 10:27
6 opinions regarding the conduct of any retailers in
7 the case, including Longs, Lucky, or Safeway;
8 right?

9 A. I don't have any opinions about the
10 conduct, meaning, like, state of the art, when any 10:27
11 of these retailers knew -- knew about the hazards
12 of asbestos, who knew what when about the hazard
13 of asbestos. That's not my area.

14 I don't talk about warnings, so I am not
15 going to be testifying about any warnings that the 10:27
16 retailers -- that should have put on the bottles
17 or not or should they have warned anybody about
18 the potential of asbestos -- of the hazards of
19 asbestos.

20 That's not something I testify about, so I 10:28
21 have no intention of saying anything like that for
22 any of the retailers.

23 Q. Okay. And you're not a geologist; is that
24 correct?

25 A. I don't have a degree in geology, that's 10:28

1 correct.

2 Q. Okay. You're not an expert in the supply
3 chain for cosmetic talc, are you?

4 A. No. I don't know what an expert is in
5 that area, other than if you just look at the 10:28
6 shipping documents from start to finish. But I
7 haven't done that.

8 Q. You've never worked for a talc
9 manufacturer or supplier; right?

10 A. A talc -- I have never been -- I have -- 10:28
11 strike that.

12 I have not been retained by any talcum
13 powder manufacturer, distributor, or defense firm
14 defending a talcum powder manufacturer or product.

15 Q. My question was a little vague there. 10:29
16 You've never been employed as an employee
17 of a talc manufacturer or supplier; right?

18 A. That would have been an easier one to
19 answer. No.

20 Q. Yeah. 10:29
21 And you're not an expert on talc mining;
22 correct?

23 A. You will have to define that a little bit.
24 Mining, like digging it out of the ground,
25 putting it through the mills, getting the 10:29

1 different sizes, the flotation, you know, when the
2 different -- you know, the fragrance gets added,
3 et cetera, you know, it's pretty straightforward.

4 Or are you meaning the different sources,
5 about what's the potential for being -- having 10:29
6 asbestos in it from the different locations of the
7 cosmetic talc mines in this country as well as
8 China as well as France as well as Italy?

9 Q. Well, let me start from -- let me start
10 from this: You've tested cosmetic talc from a 10:30
11 number of sources; correct?

12 A. From all of them.

13 Q. Have you visited any of them?

14 A. The only one I visited was the Death
15 Valley mines out in California and only took 10:30
16 samples from one of the mines that was out of the
17 national park area, the Eclipse mine.

18 Q. Have you ever seen -- I know some -- your
19 opinions are -- I believe you now hold the opinion
20 that there's chrysotile asbestos in all mines -- 10:30
21 all talc mines in northern -- North America; is
22 that correct?

23 A. There is some form of asbestos in all the
24 mines in North America.

25 If you're dealing with Montana, it has a 10:31

1 significant amount -- it has chrysotile in it.

2 If you're dealing with Vanderbilt, I've
3 never analyzed that for chrysotile, but certainly
4 I don't think there's a dispute anymore that it
5 has anthophyllite and tremolite. And I don't 10:31
6 think any manufacturers use Vanderbilt mine, thank
7 goodness.

8 You're dealing with Vermont, yes, that has
9 chrysotile in it, as well as the amphiboles.

10 And North Carolina, same. 10:31

11 Alabama, I'm not sure that's one that's
12 been used a lot, but we've analyzed samples in
13 Alabama that does have amphibole in it.

14 Vermont, Alabama, North Carolina, Montana,
15 Death Valley, Vanderbilt. 10:32

16 Trying to think of others. If I'm
17 missing any --

18 Q. Sorry. Let me just focus you on --
19 because I'm not here to discuss all mines. I'm
20 just trying to get a general sense. 10:32

21 A. Sure.

22 Q. Do you have any opinions on specific mines
23 related to Safeway or Longs in this case?

24 A. Safeway -- Safeway and Longs, if they used
25 any of these mines that I've been naming off, 10:32

1 Chinese, Italian, or French, plus everything in
2 North America, they're going to have asbestos in
3 it.

4 Q. Let's get into that in a little while.

5 Have you produced all the materials you've 10:32
6 relying opinions you're relying on for Safeway and
7 Longs?

8 MR. REID: Vague and ambiguous as to
9 "produced" and assumes facts.

10 THE WITNESS: I mean, I've produced 10:32
11 everything that -- you know, analysis that I've
12 done, and I have opinions. That's hard to produce
13 on them. We've analyzed over 500 -- I think it's
14 close to 500 cosmetic talc samples that have come,
15 as well as we've now analyzed a few what I would 10:33
16 call pharmaceutical grade used in talc
17 pleurodesis. And those came from China and the
18 French mine.

19 BY MR. RISING:

20 Q. I'll come back to that. 10:33

21 Let me just start with Safeway because I
22 don't know what your opinions are with respect to
23 Safeway.

24 What are your opinions with respect to
25 Safeway in this case? 10:33

1 A. My opinions are that any of the talcum
2 powder products that Safeway sold, if it came from
3 any of the mines that I've just discussed which is
4 essentially all of them, it's going to have some
5 level of asbestos in it. That's my opinion. 10:33

6 Q. At any time?

7 A. I'm sorry?

8 Q. At any time?

9 A. Any time they used any of these mines,
10 yes. 10:34

11 Q. What's the basis of that opinion?

12 A. That we have analyzed powder -- we've
13 analyzed samples from all these mines, starting
14 with China, Chinese, and working our way across,
15 going to Death Valley, going to Montana, going to 10:34
16 Vermont, going to North Carolina, Alabama. I'm
17 not going to go into the -- into the industrial
18 talc ones.

19 And then heading over to Europe, you've
20 got the French mine as well as the Italian mine. 10:34
21 And I don't think I'm missing any. All of those
22 we have found asbestos in it.

23 Now, you can't rule out finding one here
24 or there that is below the detection limit. But
25 it's been my opinion for a while that all these 10:35

1 talc mines have some level of asbestos as an
2 accessory mineral.

3 Q. So let me try to understand this.

4 Is your opinion that if any retailer sold
5 talc at any point in time, then that talc was 10:35
6 contaminated with asbestos?

7 A. I don't like to use the word
8 "contaminated." It's an accessory mineral that's
9 found in these talc mines. You know, every talc
10 mine you look at, you can find aluminum silicates, 10:35
11 you can find micas, you can find calcium
12 carbonate.

13 It's where you -- where you have to have a
14 specific chemistry, I'm not sure you can find the
15 amphibole asbestos in every mine. 10:36

16 You know, there may be detection -- there
17 may be issues on there on some of the mines, maybe
18 Montana, but certainly others have found amphibole
19 asbestos in Montana. So you can have very low
20 amphibole content, and we have a lot of nondetects 10:36
21 in mines like -- for amphibole asbestos, like the
22 Montana mines.

23 But the answer to your question is yes,
24 it's my opinion, if you have ever used a product
25 that had some sort of talc in it, it's going to 10:36

1 have asbestos in it.

2 Q. Do you have an opinion on what the amount
3 of asbestos would be?

4 A. On the amphibole side, you know, our
5 detection limit is 0.0001. If we find amphiboles, 10:37
6 it's got to be at least that much.

7 On the chrysotile side, our detection
8 limit is, I think, 4 zeros and a 9. 0.00009 might
9 be the lowest we have found so far. I have to
10 check. 10:37

11 So I can't tell you what the range is
12 going to be in any particular mine unless we do
13 the -- you know, we have to go back and look at
14 all the analyses. It's just it's going to be
15 there, and if it's chrysotile, we'll be able to 10:37
16 find it so far.

17 Q. Is it your opinion that chrysotile -- and
18 I want to just focus on chrysotile and not the
19 amphibole -- but that chrysotile is present in
20 every talc mine basically in the world? 10:38

21 A. I don't know about the world. But seems
22 like it. At least every talc mine that I know of
23 that has been used for cosmetic talcs in this
24 country, all those do.

25 Q. And the basis for that opinion is because 10:38

1 you've tested bottles of cosmetic talc or cosmetic
2 talc products that you understand come from those
3 mines?

4 A. Well, yes, as well as retains that come
5 from the mines. I think the Chinese mine, I think 10:38
6 we have, you know, close to a hundred different
7 samples that are positive for chrysotile.

8 In the Vermont mines, Johnson & Johnson
9 was finding chrysotile in it back in 1973 with
10 their double density CSM method. We've only done 10:39
11 a few more -- few more samples on that one.

12 Montana, a number of different people
13 have -- you know, I think Pfizer has found
14 chrysotile. Johns-Manville's Research Center has
15 found chrysotile in it. Others have found it. So 10:39
16 it's just not me.

17 Q. Do you have an opinion in this case to the
18 specific mine that any Safeway products came from?

19 A. I don't know if Safeway has given that
20 information up. But again, looking at it, I would 10:39
21 say Montana could be one that might be, but -- or
22 it could be Chinese, it could be Montana. But I'm
23 not saying that with any reasonable degree of
24 scientific certainty, since Safeway -- somebody
25 knows where they came from within that 10:40

1 organization or where it had been bottled for them
2 or manufactured.

3 But whatever it is in North America, as
4 well as Chinese, as well as Italian, as well as
5 French, it's going to have chrysotile in it. 10:40

6 Q. And let me -- I want to see if I can
7 short-circuit this because I have limited time.

8 But I understand your opinion in
9 general -- and this wouldn't be limited to
10 Safeway, it would be any store selling any 10:40
11 cosmetic talc product at any time, that cosmetic
12 talc product has chrysotile asbestos in it at at
13 least -- you could find it at least down to
14 0.00009?

15 A. I think so. I think we've gotten it down 10:40
16 to that low. But I'm not saying we're going to
17 find it every time. It depends what else is in
18 the sample.

19 You know, I think we analyzed a sample
20 recently that the majority of it was baking soda 10:41
21 and starch and talc. But it was a small amount of
22 talc. I'm not sure we found chrysotile in that
23 one or not.

24 I'm just saying all these mines have some
25 concentration of chrysotile in it, and every time 10:41

1 we have now -- we've refined this method, and
2 every time we've looked for it, we have found it.

3 Q. And you're finding it in very small
4 amounts; right?

5 A. Yes, sir. It's a trace level. It's 10:41
6 not -- certainly nothing near what you would see
7 in a chrysotile-added product.

8 Q. Do you have an understanding of how -- how
9 the chrysotile presents in the mines?

10 A. Presents. I guess I don't understand. 10:41

11 Q. Yeah, so these mines -- let's take the
12 Montana mine, right. Is it your understanding
13 these are open-pit mines in Montana?

14 A. Yes, sir.

15 Q. And it's my understanding -- let's see if 10:42
16 we share the same understanding -- that chrysotile
17 can form -- when it forms, it forms in veins?

18 A. It can. But at these concentrations, I
19 don't know how big the veins are, you know, where
20 they're located in when they're digging it out or 10:42
21 blasting.

22 And because of the size of what we're
23 seeing after the milling and pretty much seeing
24 similar sizes that I can't, you know -- or the
25 beneficiation process. So how it presents itself, 10:42

1 I don't know.

2 Q. Well, do you have an opinion -- do you
3 have an opinion as to why you're not seeing
4 variation -- for example, I assume you would agree
5 that as you're mining, you would hit potential -- 10:43
6 sometimes there would be less chrysotile;
7 sometimes there would be more.

8 Would you agree with that?

9 A. It would be hard for me, at what the
10 concentrations we're seeing, how they would even 10:43
11 identify it.

12 You know, we're not talking about a
13 tremolitic area that may have, you know, different
14 color to it where the supposed -- you know, we can
15 go through and pick out all the tremolite. I've 10:43
16 never read where they've been able to say, okay,
17 here is where chrysotile is, and we better -- we
18 better not dig here, or this is where aluminum
19 silicates are, we better not dig here.

20 So it's not -- you know, I'm not here to 10:43
21 explain it. I'm just here to say what we found
22 and others have found, say, like, for Montana.

23 Q. My question to you, Dr. Longo, and maybe
24 you don't have an opinion on it, is just, do you
25 have an explanation for why, on occasion when 10:44

1 you're testing this, you're not finding chrysotile
2 at .1 percent or even -- or higher, variation
3 where it was actually in a higher concentration?
4 Do you not have an opinion as to that?

5 A. I don't think them just digging in one 10:44
6 spot and then when they put it -- you know,
7 they're digging in a large area, then they're
8 sending it through the mill, and then their
9 flotation. There may be a number of reasons, you
10 know, diluted, that's not all -- I've never found 10:44
11 one as high as .1 or 0.1 in any of these.

12 Q. It's -- it's a rock, right, so there will
13 be rocks, and it's harder than talc.

14 Would you agree with that?

15 A. The serpentine, sure. 10:45

16 Q. And I guess what I'm trying to figure out,
17 Dr. Longo, and you just may not have an opinion
18 about it, do you know whether or not it's
19 geologically possible that chrysotile exists in
20 very small amounts evenly dispersed throughout the 10:45
21 entire -- everywhere that there's talc?

22 A. Well, I'm not having any opinion that it's
23 evenly dispersed because you're not taking -- this
24 material is putting it all together from different
25 areas, I think. 10:45

1 And geologically, you know, that's not my
2 area of geology. Others need to address that.
3 And it depends on who you ask. If you ask Alan
4 Segrave, he says there's no conditions available
5 to even form chrysotile. 10:45

6 Q. I understand that, Dr. Longo.

7 You just don't have an opinion as to why
8 you're only finding it in very small amounts; is
9 that correct?

10 A. Because it's being presented in very small 10:46
11 amounts.

12 Q. Understood. But you don't have an opinion
13 geologically as to why that is or within the
14 mining system why that is; correct?

15 A. Because I think the concentration of talc 10:46
16 of either 90 or 95 percent is coming -- I don't
17 think they dig up one ton in just one area. And
18 then it goes all through a milling process, and I
19 think they get mixed. It could be a myriad of
20 reasons. I've just not researched that. 10:46

21 Q. I want to make sure.

22 You're saying "I think," but you actually
23 don't know and don't have an opinion; right?

24 A. Well, you know, just off the top of my
25 head, it's not presented in other than trace 10:46

1 amounts because of everything else. It's like
2 when you find accessory minerals in chrysotile,
3 you'll find tremolite. Well, the tremolite is
4 presented in .01 to .001 percent. You don't see
5 all chrysotile because it's an accessory mineral 10:47
6 in lower concentrations.

7 Q. Is that an opinion that you're offering,
8 or is that --

9 A. Yes, that's an opinion based on the
10 analysis that we do. 10:47

11 Q. Okay. So you're coming up with an
12 explanation for why you're finding it in trace
13 amounts?

14 A. It's not coming up with an explanation.
15 I'm just looking at the facts, that we're seeing 10:47
16 these same concentrations over and over and over
17 and over, these same ranges.

18 Because it's trace levels, I'm not sure
19 why we should be finding it at higher
20 concentrations. 10:47

21 Q. Mr. Stewart represented to Judge Lee, last
22 week when I was talking about having to take your
23 deposition, that your opinions were all --
24 regarding Safeway were all contained in what's
25 been marked here before as Exhibit 23. 10:48

1 A. What exhibit is that?

2 Q. It's a declaration, and I'll show it to
3 you. But it was in opposition to Safeway's motion
4 for summary judgment.

5 Do you recall being shown that? 10:48

6 A. I do a lot of these, so not necessarily I
7 remember any specific one.

8 And how long ago was this done?

9 Q. I'm going to share with you right now.

10 A. Okay. Great. 10:48

11 Q. Can you see that? I'll go to the first
12 page. This was shown to you in this deposition, I
13 think, in the last -- either the first -- maybe
14 the first volume, first day of your deposition in
15 this case. 10:49

16 Are you familiar with this? Do you have a
17 copy of this there with you?

18 A. Let me look. I might.

19 I don't want to waste -- waste your-all's
20 time by looking for it if you would be happy to 10:49
21 show me what my declaration says.

22 Q. I'm trying to, but for some reason my --
23 my copy, I think, is -- my PDF here is not
24 cooperating.

25 A. That, I can't help you with. 10:50

1 Q. Let me see if I can get -- give me just a
2 second here.

3 Is that the case? Do you know whether or
4 not that declaration contains your opinions in
5 this case? 10:50

6 MR. REID: Lacks foundation to the extent
7 that he --

8 THE WITNESS: I mean, I probably --
9 (Reporter clarification.)

10 MR. REID: So objection to the -- lacks 10:50
11 foundation to the extent that Dr. Longo has not
12 been able to review or refresh his recollection
13 regarding what's even contained in the declaration
14 that he signed, which I believe, I think was about
15 six months ago-ish. 10:50

16 MR. RISING: Let me see. I'm just having
17 trouble with this particular PDF.

18 Give me just a second here.

19 THE WITNESS: Sure. No problem.

20 MR. RISING: Actually, let me just move to 10:51
21 another topic, and I'll see if I can get a better
22 copy of that that's actually coming up here.

23 BY MR. RISING:

24 Q. Let me see if I can refresh your
25 recollection without -- well, first of all, 10:51

1 Dr. Longo, you don't have that declaration sitting
2 there with you today; right?

3 A. I don't have it sitting in front of me.

4 Q. I'll represent to you that it wasn't
5 produced in your file or in your reliance 10:52
6 materials. So if it wasn't there, do you know
7 whether or not it -- it contains your -- you
8 didn't review it to prepare to provide your
9 opinions to me today, did you?

10 A. No. I didn't -- I just looked through 10:52
11 everything, and I didn't see it.

12 Q. Okay. And you're prepared to provide your
13 opinions to me, is that right, from your files?

14 A. Yes. And I've been trying, you know, my
15 best to do that. 10:52

16 Q. And have you given me your opinion with
17 respect to Safeway so far?

18 A. Yes.

19 Q. Do you have any further opinions that you
20 intend to offer with respect to Safeway? 10:52

21 A. No, sir.

22 Q. I want to show you -- let me share this.
23 Do you recognize this?

24 A. It looks like my report.

25 Q. This is Exhibit 4. It was marked as 10:53

1 Exhibit 4 to the deposition earlier. It's your
2 Marlin Eagles deposition notes report.

3 Do you recall this?

4 A. Yes.

5 Q. I just want to ask you a few things about 10:53
6 this so I can confirm. We'll start with page 2.

7 A. Okay.

8 Q. Here we have -- this is the talcum powder
9 exposure history?

10 A. Yes, we do. 10:54

11 Q. And just that first bullet point there, it
12 says:

13 "From approximately 1950s to 2017,
14 Mr. Eagles stated that he used JBP, Longs,
15 Safeway, Assured, and Truly Fine talcum 10:54
16 powder products."

17 Do you see this?

18 A. Yes, I do.

19 Q. And are those the only talcum powder
20 products that you're providing an opinion on in 10:54
21 this case?

22 A. I think he had some unnamed ones. But
23 these would -- these would be the only ones that I
24 know about.

25 Q. Are you -- you tested Johnson's Baby 10:55

1 Powder; correct?

2 A. We have.

3 Q. And you've tested Longs Baby Powder;
4 correct?

5 A. We have. 10:55

6 Q. But you haven't tested any Safeway baby
7 powder; right?

8 A. The -- no, I don't believe so. Just
9 trying to remember -- yeah. The Equate, I think
10 that was Safeway's. But that was a -- a 10:55
11 starch-containing one.

12 Q. You haven't tested any Truly Fine; right?

13 A. No, sir, I haven't.

14 Q. And you did test Assured; is that correct?

15 A. Assured, I think so. 10:56

16 Q. You tested that with -- you tested Assured
17 and Equate together?

18 A. Yes.

19 Q. And do you have an understanding of who
20 manufactures Assured? 10:56

21 A. Can't quite make it out on the -- on the
22 back of the Assured.

23 Q. And I'll come to that, but if you take a
24 look, and I think it's around page 75 of your
25 report, it's the picture of -- Greenbrier 10:57

1 International is the distributor?

2 A. Yes, that's correct, that's the
3 distributor.

4 (Reporter clarification.)

5 MR. RISING: Greenbrier, 10:57
6 G-r-e-e-n-b-r-i-e-r, International.

7 BY MR. RISING:

8 Q. Do you understand -- do you have an
9 opinion as to whether that has any relationship
10 with Safeway? 10:57

11 A. I don't have an opinion one way or the
12 other.

13 Q. Can you look at your depo notes at page 9.
14 Do you have that in front of you?

15 A. My depo notice? 10:58

16 Q. Your depo notice, which is Exhibit 4.

17 A. Yes, I have it in front of me.

18 Q. Just to make sure, you went through and
19 reviewed all of Marlin Eagles' and -- Mr. and
20 Mrs. Eagles' depositions, and you pulled out and 10:58
21 noted here all of the -- all of the testimony that
22 you're relying on to form your opinions; correct?

23 A. Correct.

24 Q. So if you're relying on it, it's here in
25 Exhibit 4; correct? 10:58

1 A. Well, I'm relying on that and also the --
2 the notes that I took --

3 Q. You're talking about Exhibit 6 -- sorry --
4 Exhibit 6, your October 11, 2023 --

5 A. Yes, that's correct. 10:59

6 Q. -- exposure notes?

7 Okay. So for your opinions for the
8 retailers, I just want to make sure. Let's focus
9 on Safeway.

10 The only -- the only documents you have 10:59
11 that you're relying on for Safeway for any opinion
12 with respect to Safeway are Exhibit 4, your
13 deposition notes, and Exhibit 6?

14 MR. REID: Overbroad.

15 THE WITNESS: Well, I don't have any 10:59
16 opinions about Safeway. What I have opinions
17 about is any Safeway talcum powder products that
18 they sold over the years. But Safeway itself is
19 immaterial to me. It's the talcum powder products
20 they sold and the opinions that I have generated 11:00
21 about that has to do with the fact that for five
22 and a half years, this is basically all the
23 research that I've done and the analysis on the
24 various mine sources from around the country. And
25 this typically used from both China, Italy, and 11:00

1 France.

2 BY MR. RISING:

3 Q. I understand that. But I just want to
4 make clear, you haven't tested any Safeway baby
5 powder; correct? 11:00

6 A. I mean, I don't -- you know, I don't know
7 who Safeway -- I may not, something that said
8 "Safeway" on it. I don't believe so. I haven't
9 tested anything that said "Safeway" on it.

10 Q. You haven't tested anything that said 11:00
11 "Truly Fine" on it; correct?

12 A. That's correct.

13 Q. Have you tested anything that you
14 understand was a Safeway store-branded product?

15 A. If it didn't say -- if it said "Safeway" 11:01
16 on it anywhere, I haven't tasted it -- of course I
17 haven't tasted it. I also haven't tested it as
18 well as not tasted it.

19 Q. Okay. I want -- if you look at page 9 of
20 your deposition notes, Exhibit 4, the third 11:01
21 paragraph up from the bottom.

22 Do you see that -- it starts with, "Of the
23 three baby powder products."

24 A. Uh-huh, yes, sir.

25 Q. It says: 11:01

1 "Of the three baby powder products,
2 it is my opinion that Mr. Eagles used
3 Johnson's Baby Powder (JBP) the most, 1955
4 to 2017, followed by the Longs and Safeway
5 baby powder products." 11:01

6 And then you have in parentheses there:

7 "1950s, 1960s to 1980s or 1990s."

8 Correct?

9 A. Correct.

10 Q. I just want to break that out as between 11:02
11 Longs and Safeway.

12 So if you turn to page 4 of your notes.

13 See that bullet point there?

14 It says:

15 "Mr. Eagles stated the first year 11:02
16 during which he first purchased Longs Baby
17 Powder was sometime around the late '60s
18 until the '80s."

19 A. Yes.

20 Q. So if we go back to page 9 of your notes, 11:02
21 when you say, "followed by Longs and Safeway baby
22 powder," the Longs is 1960s to 1980s; correct?

23 A. In that area, yes.

24 Q. And that's the time period that you
25 understand? 11:03

1 A. Yes.

2 Q. And you're limiting your opinions in this
3 case to that time period?

4 A. I'm limiting my opinions to, you know,
5 what Mr. Eagles, and I think his wife, too, what 11:03
6 they stated when they -- when they -- when he used
7 it.

8 But it wasn't -- it was also using
9 Johnson's Baby Powder at the same time. I mean,
10 this is sort of like a mix and match. 11:03

11 Q. I understand. I just want to focus on the
12 store brand, the Longs baby powder. But your
13 understanding for any opinions that you're
14 offering for this case is that Mr. Eagles -- and
15 you got this from his deposition testimony; 11:03
16 correct?

17 A. Correct.

18 Q. And he was questioned over the course of,
19 I think, five-plus days?

20 A. Yes. It would be five-plus since it was 11:03
21 eight different days.

22 Q. Sorry. So over the course of eight
23 different days, he was questioned at length, and
24 you pulled from his testimony that he used Longs
25 Baby Powder from 1960s ending in the 1980s; 11:04

1 correct?

2 A. Correct.

3 Q. And then if you turn to page 3.

4 A. Yes, sir.

5 Q. And we kind of have to -- for Safeway baby 11:04
6 powder, I think, if you look at the two bottom,
7 the only dates we have for his use of Safeway baby
8 powder would be the two bottom bullet points under
9 the heading "Safeway Baby Powder."

10 Do you see that? 11:04

11 A. Correct.

12 Q. So that would indicate 1950s, and then the
13 latest date there is the 1980s or 1990s?

14 A. Correct.

15 Q. So when you said -- in the parenthetical 11:05
16 on page 9, when you say that Safeway is from the
17 1950s to possibly the 1990s?

18 A. Well, if you go back to page 3, the second
19 sentence, he's given a store that he said that he
20 bought the Safeway product at in the mid-1970s, 11:05
21 and then the last decade might have been 1980s or
22 1990s.

23 Then you moved me to what, page 9?

24 Q. Yeah, to page 9. I'm just -- you have a
25 time period that you're talking about the use of 11:05

1 Longs and baby -- Longs and Safeway baby powder,
2 and you kind of combined them together. So I'm
3 trying to separate out the two.

4 So it looks like, from the information
5 that you have, would you agree that Longs is 11:05
6 limited to 1960s to 1980s and Safeway is 1950s to
7 potentially the 1980s or 1990s?

8 A. I would agree.

9 Q. What do you do when you have something
10 that's sort of broad and vague as that, you know, 11:06
11 1980s or 1990s, how do resolve that in forming
12 your expert opinions?

13 MR. REID: Incomplete hypothetical.
14 Assumes facts. Overbroad.

15 THE WITNESS: I don't need to. I'm not 11:06
16 the trier of fact here. And I wasn't -- I didn't
17 have enough information on that. Johnson's Baby
18 Powder was the most used. I had to get more
19 information about that.

20 But the Safeway and Longs, it's unclear 11:06
21 exactly how much, and I guess maybe that can come
22 out in the testimony by Mr. Eagles.

23 So I wasn't able to do a calculation on
24 the Longs and the Safeway because it was
25 intermixed with along the Johnson & Johnson. 11:06

1 Then, of course, you have Mrs. Eagles
2 stating that when she bought it, she never
3 purchase anything but Johnson's Baby Powder. So I
4 can't resolve that issue on which was more or
5 less. 11:07

6 BY MR. RISING:

7 Q. You don't have any opinion as to how many
8 bottles of Longs Baby Powder Mr. Eagles purchased
9 and used from the 1960s to the 1980s; correct?

10 A. Other than it was less than the Johnson's 11:07
11 Baby Powder, no.

12 Q. Okay. And other than it was less than the
13 Johnson's Baby Powder, you don't have any opinion
14 on the number of bottles of Safeway baby powder
15 that Mr. Eagles purchased and used from 1950s to 11:07
16 the 1980s or the 1990s; correct?

17 A. I'm just seeing what -- I forgot what I
18 may have asked him when I visited him.

19 Q. And you're looking at Exhibit 6, your
20 exposure notes? 11:08

21 A. I would have to -- it wasn't -- I don't
22 think there was any -- I wasn't able to determine
23 how many containers, either Longs or Safeway,
24 other than it was less than the Johnson & Johnson.

25 Q. Go to -- see if I can actually show you a 11:08

1 document now.

2 Dr. Longo, sharing my screen.

3 Okay. This is the -- let me go to the
4 first page.

5 MR. RISING: We'll mark this as next in 11:09
6 order, Early, Exhibit 43.

7 (Whereupon, Defendants' Exhibit 43 was
8 marked for identification.)

9 BY MR. RISING:

10 Q. And you have that there? 11:09

11 A. I do.

12 Q. And this is MAS Project M71719, Talcum
13 Powder Analysis, Marlin Eagles?

14 A. Yes, sir.

15 Q. And you don't -- you don't have any 11:09
16 opinion on who the manufacturer of the Assured is?

17 A. No, sir. It's really immaterial to me who
18 the manufacturer is. This was material that was
19 sent to me, so we analyzed it.

20 Q. Here, we have -- I think it's a little bit 11:10
21 difficult, but I think Greenbrier International,
22 Incorporated.

23 Do you see that --

24 A. Yes.

25 Q. -- where my cursor -- 11:10

1 I had a question for you while we're here.
2 Looks like this -- this bottle of talcum powder
3 had -- had a fair amount of talc left in it.

4 A. Yeah, we have a picture. We were weighing
5 all the containers. 11:10

6 Q. I'm trying to find -- now, did you receive
7 it -- you have this -- the top off here in this
8 picture.

9 Do you see that?

10 A. We did not receive it like that. How we 11:11
11 received it is -- would be shown in pictures 1 and
12 2. I think what we had here is a particular type
13 of bottle where you could maybe -- where the top
14 came off.

15 Q. And here's the picture of it being weighed 11:11
16 here. And I think that's at page 73 of your
17 report.

18 A. Yes. 334 grams. And we don't know
19 what -- how much the container was.

20 Q. That was what I was going to ask you, 11:11
21 because we do know that the talc and the container
22 weighs 283, grams, right, if it's full?

23 A. Yeah, 10 ounces, so it would be 283 grams.
24 So -- and another -- where is it? Another -- why
25 am I having a hard time finding it, because it's 11:12

1 right in front of me -- another 70 or -- what is
2 that -- 283, another 50 or so grams is probably
3 reasonable for a plastic container. So it was
4 pretty full.

5 Q. And you understand that this was -- this 11:12
6 was a bottle of talcum powder that Mr. Eagles had
7 in his possession?

8 A. Yes, sir. That's my understanding.

9 Q. And you tested the Assured, and you found
10 chrysotile; is that correct? 11:12

11 A. Yes, sir, that's correct.

12 Q. Go back to -- and you have here -- this is
13 your -- this is at page 22, and this is, you know,
14 right before you signed here, this is kind of your
15 ultimate opinion here; right? 11:13

16 "Results of finding chrysotile."

17 Then you say:

18 "Based on these results, it would be
19 my opinion that the application of the
20 talcum powder found in Assured talcum 11:13
21 powder container will cause significant
22 exposure, over background, to chrysotile
23 asbestos to individuals who used Assured
24 brand talcum powder products for their
25 intended purpose like Mr. Eagles." 11:13

1 Do you see that?

2 A. Yes, sir.

3 Q. I guess my question for you is, what does
4 that mean? "Significant exposure over
5 background," is that significant exposure over 11:13
6 background during the day of that application?
7 Over the course of a person's life? What do we do
8 with that?

9 A. Well, "significantly over background"
10 means that if you take an artificial background 11:13
11 level, say like the ATSDR, the Agency For Toxic
12 Substance Disease Register, in around 1980, they
13 came up with a level of 0 point 4 zeros and a 5
14 for an urban environment, and 0 point four zeros
15 and a 1 for, you know, an urban and rural -- 11:14
16 that's what I'm trying -- rural area. That, in my
17 opinion, there is no background of chrysotile
18 asbestos unless it's -- you're in an area where
19 it's being disturbed.

20 So I always look at how much is in there, 11:14
21 and if you're going to have a background of, say,
22 0.0005, that if you have the ability to measure
23 the exposure in a way that would give you the
24 detection limit you need, that it would be above
25 .00005 fibers per cc. 11:15

1 And that's an opinion based on what we
2 would -- if we could be able to make that
3 measurement at that level. I don't believe in
4 this, well, it's going to be below background what
5 the exposure is. I don't think that's a very 11:15
6 scientific method of saying something about an
7 exposure.

8 Q. Okay. And I think you've been deposed at
9 length on sort of what you think about exposure
10 levels; correct? 11:15

11 A. Oh, probably north of a hundred hours.

12 Q. Okay. And this opinion isn't any
13 different than any other opinions you've provided
14 with respect to that?

15 A. No difference. 11:16

16 Q. Okay. In his deposition, Mr. Eagles'
17 deposition, you noticed -- you pulled out the
18 Assured note, but did you notice that
19 Mr. Satterley introduced this bottle of talcum
20 powder as a Safeway product? 11:16

21 A. That's -- yeah, I don't know that one way
22 or the other. If it's not a Safeway product, then
23 he's wrong. If it is, he's right.

24 Q. And are you aware that Greenbrier
25 International is essentially a distribution arm of 11:16

1 Dollar Tree stores?

2 A. No, sir, I don't really keep up with that.
3 Again, that's out of my area. I just do the
4 analysis.

5 Q. You don't have any opinion in this case on 11:17
6 why Safeway would be selling a Dollar Tree store
7 brand in its stores, do you?

8 A. No, sir, I don't have an opinion one way
9 or another. Again, it's something that's not
10 important to me when I do this type of analysis. 11:17

11 If Safeway never had anything to do with
12 this type of product, then fine. If they did,
13 also -- you know, I don't mean fine, but I mean,
14 that's not really up to me to say one way or the
15 other. 11:17

16 Q. Do you have an opinion as to how many
17 bottles of Assured brand talcum powder Mr. Eagles
18 used throughout the course of his life?

19 A. No, sir.

20 Q. But it's one of the store brands that he 11:17
21 used after he stopped using Longs and Safeway, it
22 appears?

23 A. If this is not a Safeway product, yes.
24 2017 would be after the fact.

25 Q. And did you have an understanding -- did 11:18

1 you read where Mr. Eagles thought that he probably
2 bought this in, like, 2015 or 2016?

3 A. Well, I know he was -- you know, after he
4 said he quit putting it on his body, I know that
5 he was still using it when he played tennis. When 11:18
6 we start getting to be 2017 or 2018, you know,
7 that time period where he had to stopped playing
8 tennis because of his meso issue. But as far as
9 it says 2017 on it, he may have bought in it 2017.
10 You know, I don't know. Or was that the 11:18
11 expiration date? I don't remember.

12 Q. It has an expiration date of 2017.

13 A. Okay. So it could have been 2016; it
14 could have been 2015. I don't know.

15 Q. How does this Assured Body Powder factor 11:19
16 into Exhibit 6, which is your exposure notes and
17 talcum powder container calculations?

18 A. Well, the only talcum powder calculations
19 I did was the Johnson's Baby Powder. The others
20 were less. I don't -- find it here in a minute. 11:19

21 Q. What are you looking at right now,
22 Dr. Longo?

23 A. I was thinking about something else.

24 These are the overall body powder
25 calculations. It's not broken down. I just said, 11:19

1 okay -- he said, you know, 52 weeks a year, 4 days
2 a week, 1 application a day, depending. It
3 doesn't matter which ones it is. These are the
4 overall -- I apologize. I led everybody astray
5 here. I wasn't trying to break it down -- there 11:20
6 is no way for me to break it down into individual
7 containers. This was everybody.

8 So I said, okay, 9-ounce talcum powder
9 containers, 537 of them.

10 Q. Why do you use 9-ounce? 11:20

11 A. 9-ounce is pretty common. You know, it
12 doesn't matter. I try to use something
13 conservative. If you've got 10 ounces or 12
14 ounces, you know, you can use 15 ounces or 10
15 ounces or 12 ounces. It doesn't change the 11:20
16 amount, just how many containers you have.

17 9-ounce seems to be pretty common. And
18 the most used product here was Johnson's Baby
19 Powder. That's a 9-ounce. And you find 9 ounces
20 and 10 ounces on other ones. 11:21

21 Since I can't break it down, even though
22 Johnson & Johnson is the most, I have to make some
23 assumptions on how much the most and how much the
24 other two are.

25 Q. And you're not able to do that, as you sit 11:21

1 here today?

2 A. No, sir. I would have to have some more
3 information, such as what I have in my -- and I
4 got more information on this Su application, too.
5 I put it in there. 11:21

6 So if -- if you can change it up, you want
7 to be even -- you know, it's not going to change
8 the amount of exposure -- the amount of exposure,
9 but it would change how many containers if you
10 want to put 10-ounce or 12-ounce or 13-ounce or 11:21
11 whatever. It would just change the equation a
12 little bit.

13 Q. This exposure notes, Exhibit 6, as I'm
14 understanding it, is -- is your -- your
15 calculation of the total number of bottles, and 11:22
16 that includes Johnson & Johnson, store brands,
17 whatever, from any store, including potentially
18 Equate or Assured or anything in there; you
19 haven't broken it down into the number of each;
20 correct? 11:22

21 A. Correct.

22 Q. And you can't -- you don't have the
23 ability to do that other than to say, like, I
24 believe that your opinion is that Johnson &
25 Johnson was the most? 11:22

1 A. Well, it's not that I believe. It's the
2 evidence, in talking to them as well as, you know,
3 his wife only bought Johnson -- I mean,
4 Mr. Eagles' wife, Georgia Eagles only bought
5 Johnson & Johnson. He said he mostly preferred 11:22
6 Johnson & Johnson. So I would say the evidence
7 supports that.

8 Q. Okay. If you look at your testing of
9 Assured and Equate.

10 A. Yes. 11:23

11 Q. By the way, you haven't found a way to do
12 PLM analysis of cornstarch where you can find
13 talc, have you -- sorry -- where you can find
14 asbestos. I'm sorry.

15 (Reporter clarification.) 11:23

16 BY MR. RISING:

17 Q. Let me rephrase the question. I just want
18 to make sure.

19 You don't have a PLM analysis of
20 cornstarch where you found a way to find asbestos 11:23
21 in cornstarch, do you?

22 A. There is no asbestos in cornstarch unless
23 somebody had contaminated it, in my opinion.

24 Q. Did you look in the Equate to see if there
25 was any? 11:24

1 A. Yes (indicating). We verified that it is
2 starch, and there was nothing else in there but
3 starch. I'll give you another. This is all
4 starch particles (indicating). There was nothing
5 else in here. 11:24

6 Now, we looked at other samples that say
7 "contains baking soda and starch," when you turn
8 it around the back, and talc is on there, along
9 with baking soda and starch. They don't put it on
10 the front. Doesn't have anything to do with you. 11:24
11 That's just another case and, yes, we did find
12 asbestos in that, but not very much.

13 Q. Let me understand this.

14 So you found asbestos in a non-talc
15 product, non-talc body powder product? 11:24

16 A. No, no, no. And I probably didn't explain
17 it very well, and I apologize.

18 The front of the container, like the
19 Equate, says "made with cornstarch." Now, if you
20 go to the back of the container, it gives you all 11:25
21 the rest of the, you know, the major ingredients,
22 and it says cornstarch, active ingredients,
23 nonactive ingredients. It says, Zea mays
24 cornstarch, tricalcium phosphate, aloe whatever,
25 some leaf extract, fragrance, some other stuff. 11:25

1 There's nothing in there that says "talc."

2 And when we did the analysis -- it also
3 says:

4 "This product is not manufactured or
5 distributed by Johnson & Johnson Consumer 11:25
6 Products, Inc., distributor of Johnson's
7 Baby Powder cornstarch."

8 Something tells me there was a lawsuit in
9 there somewhere.

10 However, so we didn't expect to find talc, 11:25
11 but we did an analysis anyway. So I would not --
12 if we were to find asbestos in a cornstarch
13 sample, I would not believe anything from that
14 unless -- you know, that would be something
15 unusual. 11:26

16 But I have seen a product, and I can't
17 remember which one it was, where the front of it
18 said, "made with baking soda and cornstarch."
19 Turn it over to the back where typically the first
20 ingredient is the highest concentration 11:26
21 ingredient, and then it goes down from there when
22 they put anything on there, and the first
23 ingredient was talc, the second ingredient was
24 starch, and the third one was the chemical name
25 for baking soda, which is -- so I have seen it 11:26

1 where baking soda -- where cornstarch has been
2 mixed with talc.

3 Q. I'm going to move on, Dr. Longo. I think
4 I found a version of this, so I can show you now.
5 Apologize for not being able to do this earlier. 11:27

6 A. You don't have to apologize. I'm here at
7 your request.

8 Q. Okay. So this is your declaration in
9 opposition to -- let me show you the first page --
10 Declaration in Opposition to Defendants' Motions 11:27
11 For Summary Judgment and Adjudication.

12 This was Exhibit -- this was attached as
13 Exhibit 23 to this deposition --

14 A. Okay.

15 Q. -- an earlier version of the deposition. 11:27
16 Does this look familiar to you?

17 A. Well, I mean, you can just go to the back
18 and probably see my signature and the date. Yeah,
19 I see some of the material -- what I have written
20 is a basic outline in a lot of these. 11:27

21 Q. This is pretty standard in your
22 declarations; right?

23 A. Depending -- depending on anything new,
24 et cetera, yes.

25 Q. But basically up through -- the first part 11:28

1 of it is just your qualifications as an expert;
2 right?

3 A. Correct.

4 Q. Are you recalling this now, materials
5 identifying the sources of talc used in Longs and 11:28
6 Safeway's baby powder?

7 Are you relying on this, on the opinions
8 expressed in this declaration, for any opinions
9 you intend to offer at trial in this case?

10 A. No. I mean, Montana and Chinese is -- 11:28
11 what I think I stated earlier, we have analyzed a
12 lot of samples out of those mines. If it's, in
13 fact, Chinese and Montana, I've already given you
14 my opinions about what -- what I believe is the
15 prominent asbestos type in those two mines. 11:29

16 Q. Okay. That's what this declaration goes
17 through.

18 So let me just -- in this declaration, you
19 talk about Longs Baby Powder testing. Let me
20 start here real quick first, an overview of the 11:29
21 Longs Baby Powder testing in this declaration.

22 You recall that the 15 containers of Longs
23 Baby Powder that you tested, those were provided
24 by the Kazan firm; correct?

25 A. Yes, sir. 11:29

1 Q. And do you understand that they put an ad
2 in the paper and then purchased each one of those
3 15 containers for \$200 from the owners?

4 A. Everything about what you say I know, and
5 this is the first time I've heard about \$200. 11:30

6 Q. Okay. You knew that they bought them;
7 right?

8 A. I knew they put an ad out. And I knew
9 that these were from owners of it because they
10 have, I think, affidavit from each of the people. 11:30

11 Q. Okay. And you have those in your Longs
12 report, the affidavits; right?

13 A. Yes sir, I do.

14 Q. And you rely on those for the chain of
15 custody? 11:30

16 A. Yes, that this is -- here's the history of
17 the containers.

18 MR. REID: Belatedly vague and ambiguous
19 to "chain of custody." Calls for a legal
20 conclusion. 11:30

21 BY MR. RISING:

22 Q. What do you understand to be a chain of
23 custody, Dr. Longo?

24 A. Well, they can be all kinds of things.
25 Chain of custodies are when samples arrive here. 11:30

1 That's usual what every -- labs, okay, here's our
2 chain of custody, that this arrived on this day,
3 and here's what's happened to the sample until a
4 report goes out and we archive the sample.

5 Now, in the cosmetic talcs litigation, 11:31
6 people have taken it much further. Some say you
7 have to have a chain of custody from the day that
8 container was -- left the manufacturing facility.
9 I don't believe that is necessary, but some do.

10 This one, I think, cures that issue. 11:31
11 That, to me, is a nonissue.

12 Q. And you have declarations from the owners,
13 right, that you are relying on for the purpose
14 here that they were never refilled, manipulated,
15 or altered? 11:31

16 A. Well, yes and no.

17 Q. Well, I understand yes. How no?

18 A. Well, no, I don't have to have an
19 affidavit from any -- any person on that, how --
20 you know, how -- never refilled. 11:32

21 Well, unless you can take the top off in
22 an easy manner, such as -- such as maybe Clubman,
23 where you can -- some of the newer containers, you
24 can screw the top off, because barber shops use
25 them and want to put them in a bowl -- you know, 11:32

1 put the powder in a bowl and use a brush -- it's
2 impossible to refill them without damaging and
3 taking the top off.

4 And manipulated or altered, you can't
5 really manipulate it. What? Are you going to -- 11:32
6 you're going to put asbestos in there? You're
7 going to put chrysotile in there? You're going to
8 get the chrysotile that has the appropriate size
9 range? Or are you going to put tremolite in there
10 in a concentration that wouldn't make it too 11:32
11 suspicious, such as, you know, in the microgram
12 level or in the gram level?

13 I don't buy that. There's never really --
14 never been any evidence that something has ever
15 been manipulated. 11:33

16 Now, we have found -- we have found
17 containers in the past that, we look at it, and
18 somebody drilled -- you know, somebody drilled a
19 hole in the bottom to fill it and put tape over
20 it. Yes, that's been manipulated, and that does 11:33
21 not get analyzed.

22 So that's why I say it's yes and no.

23 Q. All right. But you included them in your
24 report; right?

25 A. Yes, sir, just like I include ones that 11:33

1 have been purchased on eBay in my reports. Not --
2 not these ones, but others.

3 Q. And you included in a declaration under
4 penalty of perjury that -- this statement:

5 "According to the declaration of each 11:33
6 owner, the contents of the Longs Baby
7 Powder were original to the day it was
8 purchased." Right?

9 A. Well, that's their declaration, so I'm
10 stating what they say. 11:33

11 Q. And you're also relying, in part, on the
12 declarations for the timing of when they were
13 potentially purchased; is that correct?

14 A. Correct. Well, it's not so much when they
15 were purchased, as been in there -- it's what 11:34
16 their declarations say. What I was saying, it's
17 not me saying this, it's them saying this. But
18 what I'm saying is, even if they -- I don't --
19 I've only found -- strike that.

20 What I'm saying is, in my opinions, 11:34
21 depending on the containers, it's very hard or
22 almost impossible to manipulate these or refill
23 them. You can't get talc back through the small
24 holes. You have to -- you have to do something
25 more creative. 11:34

1 Q. When you take your samples that you're
2 going to put on the slides out of the talc --
3 talcum powder bottles, do you just -- you shake it
4 out? Is that what you're telling me?

5 A. Well, typically, we don't do the shaking. 11:35
6 What we do is just open it and squeeze it. And
7 the air in there drives it out. And once we
8 have -- you know, usually our reports say 1 to
9 2 grams, but it's really closer to 1 gram. Once
10 we have that amount, we stop. 11:35

11 Q. And were all of the Longs Baby Powder
12 bottles that you -- that you tested were used;
13 correct?

14 A. I mean, I don't remember, but I believe
15 so. 11:35

16 Q. And you haven't tested any Longs Baby --
17 for some manufacturers, you have tested historical
18 samples that were at the manufacturers or from the
19 manufacturer; correct?

20 A. Correct. 11:35

21 Q. That's not the case with the Longs Baby
22 Powder bottles; correct?

23 A. Correct. Yeah, I mean, I haven't -- I
24 haven't remembered exactly what Longs said, but I
25 think Longs -- somewhere along the line, I kind of 11:36

1 remember that Longs didn't have any.

2 Q. And so just the historical samples are not
3 available for Longs; correct?

4 A. That's my understanding. That's what I
5 recall. 11:36

6 Q. We talked about -- follow up on this a
7 little bit. You said you're working on the TEM
8 analysis for chrysotile?

9 A. Yeah. We're getting close.

10 Q. Separate from doing, like, an analysis, 11:36
11 have you -- you tested, Longs, right, and you
12 found chrysotile; correct?

13 A. Correct.

14 Q. Now -- and so you know it's there
15 somewhere; right? 11:36

16 A. It has chrysotile in it.

17 Q. Yeah. So in every sample, you should be
18 able to find some small amount of chrysotile;
19 right?

20 A. Well, we can show you, right, the range 11:37
21 was -- three zeros and a 9 is the low end, to
22 0.005 percent.

23 Q. Separate from coming up with a repeatable
24 analysis of it, is there any reason that you
25 couldn't have somebody just look under TEM and 11:37

1 just find a chrysotile -- a piece of chrysotile so
2 that we could see it and you could tie that back
3 and say, "No, we found it via the TEM. Here's
4 what it looks like for the Longs Baby Powder"?

5 A. I'm not going to do that analysis until I 11:37
6 am satisfied what -- one, what the TEM -- what its
7 detection limit is, and, two, that we have
8 developed a method to the point that at least
9 90- -- 97 to 98 percent of what is in there when
10 we do the separation with the SG-210 is in the 11:38
11 light fraction where it should be so that we know
12 we have the most efficient -- and if we can't
13 identify it by TEM and it's not there at that
14 point, well, I guess I'll have to retire.

15 No, I'm just kidding. 11:38

16 I want to publish this. I want to be able
17 to -- there is absolutely no requirement in any
18 federal regulation or any methodology ever saying
19 that once you've identified it by PLM, that you
20 need to verify your analysis by TEM. 11:38

21 But I do plan on doing that at some point,
22 when we have the research to the point where I
23 know exactly what -- that it's -- that we have the
24 most efficient, robust amount of the chrysotile.

25 And since we have a really good alternate 11:39

1 to just -- and being able to start with a known
2 concentration in these samples, it allows me to
3 get to the point where I can say, "Stop. We have
4 the best method available to remove the chrysotile
5 out of the talc and harvest it, so to speak. Now 11:39
6 it's time to do TEM."

7 Q. I understand the reasons that you don't
8 want to do an analysis and you want to get it
9 perfect and you want to publish it, but I just
10 want to back up a little bit. 11:39

11 Just from a curiosity standpoint, because
12 I think the jurors will be curious, did you have
13 anyone even try and look through the -- at Longs
14 Baby Powder under TEM to see if you could just see
15 chrysotile? 11:40

16 A. I mean, we have seen it by SEM, some of
17 the bigger structures that are in there, and we
18 know others have seen by TEM.

19 But I would -- this is the type of
20 research that takes time and a lot of effort, and 11:40
21 I prefer to have the best opportunity to be able
22 to say "yes" or "no"; "No, we cannot find it by
23 TEM, and, you know, I'm wrong," or "Yes, we did
24 find it. I was right."

25 But to go in it where you don't have the 11:40

1 best opportunity, then you don't know if you are
2 going to be right or wrong because you don't know
3 if you have the best way to separate it out to
4 give you the ultimate chance to be able to say yes
5 or no. 11:40

6 Q. I just want to make sure -- like, I
7 understand you're working on this, but you
8 didn't -- you haven't had anybody go look at Longs
9 Baby Powder -- and I'm just focused on Longs Baby
10 Powder. I'm not concerned what you found out of 11:41
11 the others. These are 15 bottles of Longs Baby
12 Powder that were tested; right?

13 A. We take 15 -- not having looked at the
14 Longs materials, you know, since -- I haven't
15 looked at the Longs material since the Prudencio 11:41
16 case.

17 Q. Right. And it was back in -- it was back
18 in April of 2021; right?

19 A. Right.

20 Q. So you've had a -- you've had more than 11:41
21 two years to take a look via TEM to confirm and
22 see if there was -- if what you're seeing and
23 calling chrysotile is, in fact, chrysotile; right?

24 A. What we're calling chrysotile is, in fact,
25 chrysotile. It is not fibrous talc at all. And 11:41

1 we have shown that it's -- we have found it by SEM
2 in Montana samples --

3 Q. Let me stop you there.

4 A. I wasn't done.

5 But to go and say, "I don't have the best 11:42
6 opportunity to prove it one way or the other
7 because, oh, you're curious; let's just go a
8 look," well, you know -- and then, well, yeah, we
9 took a look, we didn't find it, because we were
10 curious, I don't know if it's the best 11:42
11 opportunity.

12 I mean, I've been doing this long enough.
13 And then you get beat around the head with it. If
14 I am going to get beat around the head with it, I
15 would rather have it the best opportunity for us 11:42
16 to show it is or it isn't.

17 Q. Well, and part of that is because -- is
18 because of the way in which you're looking at
19 this; right? It's because you are in litigation
20 and you have attorneys like me who will ask you 11:42
21 questions about it. So if you go and be curious
22 and then it's wrong, I'll use that against you;
23 right? That's essentially what you are saying?

24 MR. REID: Argumentative, misstates, and
25 incomplete hypothetical. 11:43

1 THE WITNESS: Well, what I am saying is,
2 why not -- why not give it the best opportunity?
3 I mean, to me, this is a Ph.D.-level research
4 project that -- we're doing it when we're not
5 running regular samples. I mean, we're getting 11:43
6 there, and I'm going to publish it.

7 I believe -- you know, I know I'm right on
8 this. We found it by SEM. I can -- you know,
9 it's not fibrous. It's not talc. It's not talc
10 plates on edge. And nobody has come up with any 11:43
11 other minerals that it's supposed to be, because
12 it's not -- it's not talc. It's not talc at all.

13 BY MR. RISING:

14 Q. Okay. Let me just follow up on that. So
15 the SEM -- 11:43

16 And I'm just -- I'm just talking about
17 Longs. I've got to get up and defend Longs in
18 this trial. Okay? So let's just focus on Longs;
19 right?

20 You have found it for other -- you're 11:44
21 saying you have found it -- confirmed it via SEM
22 in -- for other products?

23 A. Yeah, might be right where you cut off --
24 but it's not -- it's not the other products. It's
25 the mine source. 11:44

1 I think we also found it in Gold Bond, one
2 of them, but I think we just -- we took a look at
3 a couple of the Montana samples by SEM, and it's
4 easier.

5 But then people argue, "Well, it's not 11:44
6 chrysotile; you don't know if it's chrysotile,"
7 that sort of thing.

8 Q. Did you look at the Longs Baby Powder by
9 SEM to confirm what you're seeing is chrysotile is
10 chrysotile? 11:44

11 A. We have not done Longs Baby Powder by SEM.
12 We have done none of these by TEM.

13 Q. And you do a TEM analysis for amphibole
14 asbestos; correct?

15 A. Correct. 11:45

16 Q. And is there any reason that when you're
17 doing the TEM for amphibole asbestos you wouldn't
18 be able to come across and see some chrysotile --
19 I guess you're calling them bundles?

20 A. The reason is that we're -- by TEM, we are 11:45
21 doing a heavy density of 2.85. Only amphiboles
22 are going to be found down in the pellet.

23 Q. And no one -- just focusing on the Longs
24 Baby Powder samples, you haven't had another lab
25 or another microscopist confirm your analysis; 11:45

1 correct?

2 A. I don't know -- besides Alan Segrave, I
3 don't know anybody else who has analyzed Longs
4 Baby Powder.

5 Q. But no one else has confirmed that there's 11:46
6 chrysotile in Longs Baby Powder other than your
7 lab; correct?

8 A. Well, it's hard for me to say "yes" or
9 "no." I'm not keeping track of everybody else
10 unless I get a report. 11:46

11 So the only report I've got from somebody
12 else that has looked at this -- that I've gotten a
13 report from is Alan Segrave.

14 Q. That's all you're aware of, is Mr.
15 Segrave? 11:46

16 A. No, that's the tremolite one.

17 Q. And --

18 A. Yes. I'm sorry. I didn't answer your
19 question. Yes. That's the only one I know --
20 it's not that I know of. You know, unless a 11:46
21 report comes across my desk, I don't -- I'm not
22 going to talk about anybody may or may not know.

23 Q. You were talking about the Montana mines,
24 and in this declaration, you have opinions
25 regarding Montana talc used in Longs and Safeway 11:47

1 baby powder. So at one point in time, you thought
2 that there was Montana talc used there?

3 A. I think it was from that person most
4 knowledgeable deposition that I referenced back a
5 ways and maybe -- you know, maybe -- 11:47

6 Q. You're talking about Mr. Mobley --

7 A. Correct.

8 Q. -- who testified in Prudencio?

9 A. And, you know, the group in Tennessee.

10 But I think Alan Segrave said the exact 11:47
11 same thing in his report, because he talked about
12 Montana and Chinese.

13 Q. So let's just walk through this really
14 quickly.

15 As I understand the opinions -- are you 11:47
16 intending to provide the opinions that are in this
17 declaration in this case?

18 A. It's not an opinion -- I don't look at
19 those as opinion. If this is what somebody said,
20 then it's a fact. If nobody testified that it was 11:48
21 from Montana and nobody knows, then no, it's not a
22 fact. Then I would have the opinions that if it
23 was these mines, it's going to have asbestos in
24 it.

25 Q. Okay. Let me focus on this, then. If -- 11:48

1 assuming that someone testifies that some -- at
2 some point in time, some Safeway or Longs Baby
3 Powder came from Montana, let's -- let's see if
4 this would be the basis for that, for your opinion
5 that all Montana talc has asbestos in it. Is that 11:48
6 fair?

7 A. That's fair. They're all in the same
8 geological formation. They're all going to have
9 asbestos in them, in my opinion. No matter if
10 it's Yellowstone, Beaverhead, Treasure, Willow 11:49
11 Creek, they're all going to have asbestos, in my
12 opinion.

13 Q. Okay. And as I understand -- and I'm not
14 going to walk through the whole thing, because we
15 don't have enough time. But in this declaration, 11:49
16 you essentially cite some -- some articles and
17 resources to, first, indicate that there are only
18 really five mines at issue in Montana; do you
19 agree with that?

20 A. I agree. 11:49

21 Q. Okay. And then because -- because
22 Mr. Mobley only referenced the talc was
23 potentially from Montana, you don't know which
24 mine; right?

25 A. No. 11:49

1 Q. So then what you do here is you're
2 trying to -- you're trying to tick off a basis for
3 each of the mines, right, to show that there was
4 asbestos in each of the mines?

5 A. We analyzed a number of different products 11:50
6 from different mines.

7 Also, there's not a lot of things that I
8 agree with Mickey -- Dr. Gunter with, but
9 Dr. Gunter testified that because of the -- it's
10 all in the same geological deposit, the mines 11:50
11 would all be the same.

12 Q. Got that. But what I want -- you have --
13 you have some articles from the '70s that talk
14 about the mines, right, and then -- and that, in
15 and of itself, isn't enough for you to render an 11:50
16 opinion that the mines have asbestos in them and
17 that everything that comes from those mines has
18 asbestos in it; correct?

19 A. Between the articles, between our own
20 testing, between other -- it verifies my opinion 11:50
21 that you're not going to have any difference from
22 one mine to the next since it's all the same
23 geological deposit.

24 Now, there's opinions that none of the
25 mines have it in it: you know, Segrave and, I 11:51

1 think, Gunter; probably Sanchez, too. But we have
2 found it. The EPA says there's asbestos in some
3 of the mines. Our Night Magic analysis for Avon
4 used the same mines. We found it in that.

5 So it's my opinion. 11:51

6 Q. I understand, Dr. Longo. I'm just trying
7 to separate out the basis for your opinion.

8 So you have some articles and EPA reports
9 with respect to describing the mines and
10 describing the potential in some of them some 11:51
11 potential for asbestos or asbestiform minerals in
12 that area; correct?

13 A. Correct. That's some of the reason.

14 Q. Those -- if you didn't have your own
15 testing, those articles by themselves wouldn't 11:52
16 allow you to render your opinion to a reasonable
17 degree of scientific certainty that Safeway -- if
18 Safeway's baby powder came from Montana mines, it
19 had asbestos in it; correct?

20 A. I don't know if that's correct or not. 11:52
21 That's not the situation I have. You know, it's a
22 hypothetical.

23 If your hypothetical was correct that I
24 didn't have any information about Montana, I may
25 not be able to render any opinion about asbestos 11:52

1 in it, but that's not what we have here.

2 Q. And I'm trying to separate out the two.
3 Can you do that? Would you feel comfortable
4 rendering that opinion solely based upon the
5 sources -- the published sources that you quote in 11:52
6 this declaration?

7 MR. REID: Vague, ambiguous, incomplete
8 hypothetical, misstates fact, improper
9 hypothetical.

10 THE WITNESS: It's very hard for me to 11:53
11 unring the bell. You know, I don't have your set
12 of facts, so I can't give you an opinion on your
13 set of facts.

14 BY MR. RISING:

15 Q. Okay. Let's go -- but you would agree 11:53
16 that part of your opinion is the testing that you
17 have done on these mines, and you think that
18 that's important; correct?

19 A. Well, the testing shows what we have
20 found, and then the rest of it also shows that 11:53
21 others have found. EPA states it's there, and
22 other papers.

23 So for me to say, okay, I'm going to
24 eliminate everything over here and just say, could
25 I say that here -- and I don't have all -- you 11:53

1 know, I don't have all the information in here.

2 I don't have the information I know about
3 Johns-Manville Research Center finding chrysotile
4 positive in 13 out of 13 Montana samples. Now,
5 they called two cross-contamination, but a lot of 11:54
6 chrysotile in other.

7 And I think it was either Cyprus or Pfizer
8 that tested the TEM on something like almost 2,000
9 Montana samples, and 25 percent of them -- back in
10 the '70s, and they did TEM and XRD -- and SAED on 11:54
11 it and found almost 30 percent of them positive
12 for chrysotile.

13 Also tremolite, you know, amphiboles have
14 been found there.

15 So there's not just this. There's other 11:54
16 information out there.

17 Oh, there we go.

18 "I've reviewed Johns-Manville's
19 Research Engineering Center" --

20 Q. Yeah, yeah, yeah. So that's what you were 11:54
21 just talking about right there; right? So -- and
22 that's paragraph 22.

23 A. -- Cyprus -- and, also, I was just talking
24 about Cyprus, and, you know, and I think also
25 Pfizer was involved in some of that. 11:54

1 Q. So that is a mine in Montana where they
2 found asbestos; right? And it's chrysotile
3 asbestos; correct?

4 A. Correct.

5 Q. And they confirmed it with TEM; correct? 11:55

6 A. Correct.

7 Q. And it was at concentrations that were
8 much higher than the concentrations you're
9 finding; correct?

10 A. By TEM? 11:55

11 Q. Yes.

12 A. Well, we haven't done TEM on ours yet
13 to -- but they found -- they had 13 samples.
14 Every one of them had chrysotile in it. But
15 samples -- two of the samples, they thought it was 11:55
16 too close to, quote, cross-contamination from
17 chrysotile. The other 11 were high amounts.

18 So it's not like they were different than
19 ours. We just don't have cross-contamination in
20 our stuff. 11:56

21 Q. And they did confirm them with TEM,
22 though; right?

23 A. Correct.

24 Q. And that was -- when did they do that?
25 Was that back in the '70s as well? 11:56

1 A. I think '74, '75, something like that.

2 Q. I want to talk about the testing that
3 you've personally done or your lab has done that
4 you understand to be from Montana mines.

5 There's -- and the five -- it's the five Montana 11:56
6 mines that you are trying to exclude with this
7 testing; right?

8 A. Trying to exclude?

9 Q. Trying to -- you're trying to confirm that
10 there's asbestos in each of the five Montana mines 11:56
11 based upon your testing; correct?

12 A. No. I'm just trying to say that if they
13 said it was Montana, we'll do the testing on it
14 and then see what we find for what they say
15 they're using in Montana. 11:57

16 Q. Paragraph 21 says:

17 "Our testing has shown regulated
18 asbestos in Avon and Colgate talc products
19 sourced from Montana mines, all located in
20 the southwestern part of the state. 11:57

21 "Hence, based upon my education,
22 expertise, and a detailed review of the
23 materials mentioned herein, I'm of the
24 opinion to a reasonable degree of
25 scientific certainty that asbestos, 11:57

1 asbestiform fibers, and asbestiform talc
2 was and is present in the Montana mines
3 used for cosmetic talc in Longs and
4 Safeway baby powders."

5 See that? 11:57

6 A. Yes.

7 Q. Is that your opinion in this case?

8 A. Yes, it is.

9 Q. Okay.

10 A. Again, where the mines are for these two 11:57
11 is not really opinions. If either -- either -- if
12 neither Longs, I mean, or Safeway never used
13 Montana mines, they used some other source, I'd
14 like to know. Then I couldn't say it was -- you
15 know, you've got -- it wasn't all from Montana. 11:58

16 Q. Well, Dr. Longo, I'm trying to -- I'm
17 trying to just figure out, like, are all of your
18 bases for determining that there's asbestiform in
19 all of the mines in Montana set forth in this
20 declaration? 11:58

21 A. If it is chrysotile, and it's -- then that
22 is asbestiform. Nobody argues with that. So
23 every -- every one that we have done that has
24 chrysotile in it has asbestiform in it.

25 Then if we start looking at the -- you 11:58

1 know, when we find it with amphiboles, like --
2 such as tremolite or anthophyllite, they're
3 typically bundles by TEM, and that's asbestiform.

4 THE WITNESS: I mean, I hate to -- I know
5 we are getting close, but I need a -- I need a 11:58
6 break.

7 MR. RISING: Yeah, we can -- let's take
8 five minutes. Or do you need ten?

9 THE WITNESS: I'm going to need a little
10 bit longer than that, five to ten minutes. Can we 11:58
11 go off the record?

12 MR. RISING: Sure.

13 THE VIDEOGRAPHER: We are going off the
14 record at 2:59 p.m.

15 (Recess taken.) 12:08

16 THE VIDEOGRAPHER: This is Media Number 4,
17 and we are back on the record at 3:28 p.m.

18 BY MR. RISING:

19 Q. Dr. Longo, were you able to find a copy of
20 the declaration that I have been asking you about? 12:28

21 A. That, I didn't look for. I'm sorry. I
22 thought we had finished it.

23 Q. No -- well, the problem is, what I -- what
24 I want to know is -- and, I guess, I don't know if
25 you're able to do it -- 12:28

1 In the declaration, I just want to focus
2 on the testing. In the declaration, you talk
3 about testing one 1987 Avon Night Magic talc
4 powder that you understand was sourced from the
5 Beaverhead mine in Montana. 12:29

6 Are you familiar with that test?

7 A. I am.

8 Q. Have you tested any other -- are there any
9 other tests you're relying on with respect to the
10 Beaverhead mine in Montana? 12:29

11 A. Probably since that time, I have done a
12 few other Avons. But to be fair, that would be
13 the only Avon I would be relying on.

14 Q. And how is it that you know that it's from
15 the Beaverhead mine? 12:29

16 A. From Avon's formulas.

17 Q. And did you produce those in this case?

18 MR. REID: Assumes facts.

19 THE WITNESS: I doubt it.

20 BY MR. RISING: 12:29

21 Q. That's not part of your file for this
22 case; right?

23 A. No, sir, it's not.

24 Q. Okay. And have you actually reviewed the
25 Avon formula? 12:30

1 A. Many times. I've done a lot of Avon
2 samples.

3 Q. Anything other than the formula that you
4 are relying on?

5 A. Other than where they stated that they got 12:30
6 the talc for that product, no.

7 Q. And when you say "where they stated," who
8 are you saying they are?

9 A. Well, Avon's formula. You know, formula
10 for the product. 12:30

11 Q. So within -- there's some formula document
12 that references Beaverhead mine for the 1987 time
13 frame?

14 A. Yes, sir.

15 Q. Did you read any testimony with respect to 12:30
16 that in forming your opinions?

17 A. Well, at the time I got deposed on it, may
18 have. I just don't recall. It's been a while.

19 Q. And how do you know that that -- that that
20 formula is -- or that that is accurate? 12:31

21 A. How do I know?

22 Q. Yes. Or do you know?

23 A. Well, I mean, that's what they stated for
24 when they made that product.

25 Q. Did you talk to anybody from Avon? 12:31

1 A. No. Of course not.

2 Q. Did you read any deposition testimony from
3 anyone at Avon?

4 A. I don't recall.

5 Q. So in order to confirm that it's from the 12:31
6 Beaverhead mine in Montana, we would need to -- we
7 would need to see -- at the very least, see that
8 formula; correct?

9 A. Well, I can -- I can -- not for this
10 deposition, but -- I mean, not for this -- during 12:31
11 this time, but I can -- I can look it up and
12 see -- make sure I still have it. I mean, I
13 should. And you want to mark it as an exhibit,
14 that's fine with me as long as my client is okay
15 with it. 12:32

16 MR. RISING: Sure. Let's mark -- let's
17 have that be next in order.

18 Is that 44, Early?

19 THE REPORTER: Yes.

20 (Whereupon, Defendant's Exhibit 44 was 12:32
21 marked for identification.)

22 BY MR. RISING:

23 Q. Okay. And so what's -- that would be --
24 that would be related to a product that you tested
25 in 1987. How -- how is it that a product tested 12:32

1 in 1987 would have any bearing on something that
2 potentially came out of a Montana mine, let's say,
3 for a Safeway product in the 1950s?

4 MR. REID: Vague and ambiguous regarding
5 "tested in '87." 12:33

6 THE WITNESS: I wasn't testing any talc --
7 I wasn't testing anything that had to do with
8 talcum powder in 1987. MAS had not even been
9 founded at that point. This was a 1987 container.

10 BY MR. RISING: 12:33

11 Q. I understand that.

12 So if you're testing a 1987 container, how
13 is it -- what is your opinion with respect to how
14 that relates to something that was potentially
15 mined in 1950, for example, or in the 1950s? 12:33

16 A. Because if it was mined out of Montana,
17 it's going to be the same geological formation.
18 It really doesn't matter if it's 1950s or '60s or
19 '70s or '80s or '90s or 2000s. It's coming from
20 that mine source. 12:33

21 Q. So if I understand this, your opinion is
22 that if you test one bottle of -- of a talcum
23 powder product that was available for consumers at
24 any point in time, the testing for that one bottle
25 determines forever that there is -- for the 12:34

1 entire -- forever that that mine that it came from
2 has asbestos in every part of the mine and that
3 every bottle that comes out of that mine will have
4 asbestos in it?

5 MR. REID: Incomplete hypothetical. 12:34
6 Argumentative. Assumes facts. Ignores previous
7 testimony regarding historical sampling and
8 testing and other articles and other entities'
9 historical testing.

10 MR. RISING: Michael, that's not -- you 12:34
11 can say, "Assumes facts." You can't coach the
12 witness to remember everything that he's doing.
13 And by the way, you're referring to stuff that's
14 totally outside of his record here.

15 MR. REID: I'm not, considering that you 12:35
16 already went through those things with him earlier
17 on in this deposition. It's not coaching. It's
18 just pointing out on the record that your question
19 ignores those specific things, which under --
20 under the California rules of court, I'm allowed 12:35
21 to point out the issues with your questions and
22 that --

23 MR. RISING: But you're not allowed to
24 make -- you're not allowed to make speaking
25 objections, Michael. So let me just -- 12:35

1 MR. REID: I'm allowed to assist --

2 MR. RISING: Let me ask the question a
3 different way.

4 MR. REID: I'm allowed to assist you in
5 asking better questions by telling you how it's 12:35
6 wrong.

7 MR. RISING: You are.

8 BY MR. RISING:

9 Q. So -- so is this the only testing
10 that you're -- this is the only testing that 12:35
11 you're relying on with respect to the Beaverhead
12 mine in Montana; correct?

13 MR. REID: Misstates.

14 BY MR. RISING:

15 Q. For your opinions in this case. 12:35

16 MR. REID: Misstates former testimony.
17 Ignores former testimony.

18 THE WITNESS: That's not the only Montana
19 talc samples that I have analyzed. All Gold Bond
20 is from Montana. We've analyzed Cashmere Bouquet 12:36
21 from Beaverhead. We've analyzed -- I think those
22 are in there. We've analyzed a number of Gold
23 Bond that I think could be from either Treasure or
24 one of the others.

25 I'm also relying on information I said 12:36

1 earlier about Cyprus's testing, about
2 Johns-Manville's testing.

3 I did not mention Gold Bond, but there --
4 it's well-established that it's all Montana. And
5 it's either Treasure or one of the others. 12:36

6 I'm relying on what EPA says in some of
7 those mines.

8 So, no, it's not just based on this one
9 container, but it is based on the fact -- and that
10 particular container, we didn't do any chrysotile 12:36
11 testing, but we did find amphiboles in it.
12 Tremolite.

13 Q. But based upon that testing, you can --
14 that testing establishes that there are -- there
15 are -- there are amphiboles present, in your 12:37
16 opinion?

17 I'm just trying to figure out what the
18 limits of your opinion are, Dr. Longo.

19 Your opinion are -- is that a bottle that
20 came out of the Beaverhead mine in Montana had 12:37
21 amphiboles present in it when you tested it,
22 amphibole asbestos, and therefore, every other
23 bottle that potentially came out of that mine has
24 amphibole asbestos in it, or does have amphibole
25 asbestos in it? 12:37

1 MR. REID: Okay. Hold on. Well, hold on.

2 Vague and ambiguous as to "established."

3 Incomplete hypothetical. And ignores fact in
4 previous testimony regarding other considerations.

5 And I'll also object to the extent it's 12:38
6 incomprehensible.

7 THE WITNESS: The Alan Segrave report did
8 some testing to try to verify Dr. Steve Compton's
9 analysis of 52 retains from Montana, that three of
10 them -- three or four of them, he found tremolite, 12:38
11 anthophyllite, as well as chrysotile asbestos by
12 TEM out of the 52.

13 I did not bring that up, but since Alan
14 Segrave did in his report, I do have those
15 analysis. So it's not just me. It's also -- it 12:38
16 was -- either Pfizer or Cyprus also did amphibole
17 testing in Montana and found tremolite in it. So
18 it's just not me saying it because I found it
19 in -- in the Night Magic Avon container.

20 BY MR. RISING: 12:39

21 Q. Did you produce your Gold Bond testing in
22 this case?

23 MR. REID: Vague as to "produce."

24 THE WITNESS: I did not.

25 BY MR. RISING: 12:39

1 Q. Okay. And you didn't actually produce
2 your -- your Avon testing; correct? You just
3 refer to it here?

4 A. That's correct.

5 Q. In paragraph 20, you talk about testing 91 12:39
6 Colgate Cashmere Bouquet containers?

7 A. Correct.

8 Q. And you had an understanding that -- that
9 the talc in those Colgate Cashmere Bouquet
10 containers came from different mines over time? 12:40

11 A. Correct.

12 Q. And you have this table in the middle
13 there, "Containers by Ore Source."

14 Do you see that?

15 A. You will have to show it. There's nothing 12:40
16 on the screen.

17 Q. Oh, sorry. I forget you don't have it.

18 A. I've got "iPad 94" and "Early 2," which I
19 was curious who that is.

20 Q. Here we go. 12:40

21 A. Okay. There we go.

22 Q. Are you familiar with this table here?

23 And I'll let you -- sorry. So you can
24 read the...

25 A. Correct. 12:41

1 Q. And here, there's the Willow Creek and
2 Beaverhead mines; right? Those are the relevant
3 Montana mines; correct?

4 A. Correct.

5 Q. And I -- so -- and you tested product that 12:41
6 had Italian only in it, and you found asbestos in
7 that; correct?

8 A. Correct.

9 Q. And then these indicate -- when it
10 says "blend," that means the Italian is blended 12:41
11 with North Carolina and Willow Creek?

12 A. Correct.

13 Q. And you found asbestos in that; right?

14 A. Correct.

15 Q. Now, if you found asbestos in Italian only 12:41
16 and then you found asbestos in an Italian blend,
17 how is that diagnostic of North Carolina or Willow
18 Creek?

19 A. Well, 12 out of 13 Italian, Willow Creek,
20 Montana blend, I think those -- 10 out of 10 is 12:42
21 just chrysotile. And I believe the Italian and
22 Beaverhead and Montana blind -- blend -- not
23 blind -- is all chrysotile.

24 So that's a good point; you know, which of
25 the mines -- which of the two mines there in the 12:42

1 last two is more likely than not to have all the
2 chrysotile in it. I would say more likely than
3 not, Willow Creek/Montana versus in
4 Beaverhead/Montana blend, five out of five, but I
5 can't say it within a reasonable degree of 12:42
6 scientific certainty.

7 Q. Right. I mean, when you know that one has
8 chrysotile -- you've tested one that has
9 chrysotile in it and then you blend it with
10 others, it could either be that one or, 12:42
11 potentially, the others, but you can't rule out
12 it's only the one; right?

13 A. In the last two, I would say more likely
14 than not. I know Italian does have some
15 chrysotile in it, but I know also Willow Creek, 12:43
16 Montana, and Beaverhead also has -- I think more
17 prone to have chrysotile in it than amphiboles.
18 So...

19 Q. You have -- you have the Beaverhead and
20 Willow Creek. What is your -- and there are five 12:43
21 other mines; right? So there's -- I think there's
22 -- what are the -- what are the mines that --
23 what's your understanding of the mines that could
24 potentially --

25 A. You've got Treasure. 12:43

1 Q. Here it is.

2 A. You have got --

3 Q. Sorry.

4 A. You've got Beaverhead. I'm trying to
5 think of the other two off the top of my head. 12:44

6 (Reporter clarification.)

7 BY MR. RISING:

8 Q. Let me clarify so we have a clean record.

9 A. Historically, you have got one, two,
10 three, four, five mines; Willow Creek, Regal, 12:44
11 Treasure, Beaverhead, and Yellowstone.

12 Q. So it's your opinion that if cosmetic talc
13 came from Montana at any point in time, it must
14 have come from Yellowstone, Beaverhead, Treasure,
15 Regal, or Willow Creek mines? 12:44

16 A. Depending on what the manufacturer said,
17 yes.

18 Q. Do you know if there were any other mines
19 producing cosmetic talc in Montana in the 1950s or
20 '60s -- 1950s, '60s, '70s? 12:45

21 A. Not that I am aware of. If you know one
22 other, I'd like to know.

23 Q. Well, here, we're relying on Mr. Mobley's
24 testimony about potentially getting their product
25 from Montana, and that's all we have to go off of. 12:45

1 Right? So that's why you are walking through the
2 five different mines; correct?

3 A. I'm sorry. Could you repeat that? I
4 apologize. I just didn't follow it.

5 Q. Yeah. 12:45

6 Here, there was -- there was a -- there
7 was a deposition of a gentleman in Prudencio,
8 Mr. Mobley.

9 A. Oh, that's correct.

10 Q. Right. And what he said was his 12:45
11 recollection that -- do you recall this, that his
12 recollection was that 85 percent of our talc came
13 from Montana, but no specific mine, or China;
14 again, no specific mine -- 15 percent from China,
15 no specific mine? 12:46

16 Do you recall that?

17 A. Yes, in -- well, for China, there's only
18 one region from it all comes from, and it's all
19 the same. I mean, manufacturers would be at
20 different mines there in that range. 12:46

21 And just in J&J, we probably analyzed 40,
22 50, 60, 70 -- something like 70, 80 bottles,
23 something like that, samples either from
24 containers or from mine retains that were
25 collected either by Segrave or Sanchez. 12:46

1 They get field trips to China. My client
2 never offered to send me over to one of those.

3 Q. Sir, let me just walk through this really
4 quick and see if you can tell me.

5 For the Yellowstone mine, what products 12:46
6 have you tested that you understand came from the
7 Yellowstone mine?

8 A. Well, I can't recall now. But, again,
9 it's my opinion it doesn't matter which one it
10 comes from. But at least each one of the mines 12:47
11 where we have tested a product, we find the same
12 thing.

13 When I did the -- you know, the retains
14 and I have to look where the different retains
15 came from, refined chrysotile. 12:47

16 So in my opinion, it's all under one
17 geological condition. It's all the same. Doesn't
18 matter what mine it comes from, in my opinion.

19 Q. Well, let me just walk through. I
20 understand that. 12:47

21 You have tested from Beaverhead; right?
22 Because that was the Avon; correct?

23 A. Treasure, Beaverhead. Cyprus did
24 Yellowstone. I would have to look back where Gold
25 Bond was getting theirs. 12:47

1 Q. Not sure about Regal?

2 A. I just don't recall right now.

3 Q. When you say Cyprus Mines, you're

4 referring -- are you referring to the

5 Johns-Manville testing?

12:48

6 A. They did their own testing.

7 Q. Have you produced that testing in this

8 case?

9 A. It's either Cyprus or -- oh, Cyprus or

10 Pfizer. No. Have I produced that? I don't think 12:48

11 so.

12 Q. What you've produced in this case is

13 testing from -- I guess you haven't produced the

14 testing.

15 But what you were relying on is a

12:48

16 reference to testing of Avon -- and you have some

17 data from that that you have in this

18 declaration -- and then the Cashmere Bouquet;

19 right?

20 A. Correct. As well as our own. I didn't 12:49

21 put anything in there about Gold Bond at the time.

22 That's all Montana, from their retains, et cetera.

23 So anyway.

24 Q. Are you -- are you aware of any -- any

25 published peer-reviewed article that finds that 12:49

1 there is various asbestiform talc, whether it be
2 chrysotile or amphibole asbestos, in all talc
3 samples that are mined -- that are mined for
4 Montana?

5 A. I don't know if anybody has published 12:49
6 that.

7 But I know geologically, I've not -- you
8 know, Mickey Gunter said it was all the same;
9 you're going to have the same talc from one to the
10 other. 12:50

11 I think Segrave, even though he say
12 there's -- I think they both say there's no
13 asbestos in there, but they don't say anything --
14 that there's some sort of different geological
15 conditions from one to the other. 12:50

16 If you ever look at a picture of them, you
17 can see them all right next to each other.

18 Q. Okay. But as I understand it, your
19 opinions with respect to Safeway in this case
20 aren't necessarily dependent on this -- this is an 12:50
21 example of what you might use if Safeway is
22 actually from Montana, but in your opinion, the
23 fact that Safeway sold any talcum powder product
24 means that that talcum powder product had some
25 level of asbestos in it; is that correct? 12:51

1 A. It's the same opinion that I've been
2 stating, is any mine source that cosmetic talc was
3 sourced from for any of the mines in the -- in
4 North America will have some level asbestos in it.
5 It's just a matter of detection limits. 12:51

6 Q. And now let's translate that to bottles.
7 Does that mean that, in your opinion, any bottles
8 of talcum powder sold by Safeway at any point in
9 time that contained cosmetic talc will -- the
10 bottles themselves -- each bottle will have some 12:51
11 level of asbestos in it?

12 A. Any container sold by Safeway that has
13 cosmetic talc in it is going to have asbestos in
14 it. However, it's a matter of detection limit;
15 you know, can we see it with the detection limits 12:52
16 we have?

17 But in my opinion, there's no such thing
18 as a clean mine, that there is no asbestos in it.
19 That's never been proven. You'd have to have a
20 detection limit down to, by TEM, one fiber, 12:52
21 meaning one fiber per gram or ten fibers per gram.

22 You know, our TEM detection limit right
23 now on amphiboles, the best we have is about 5,000
24 to 6,000, 4,000, 3,000 versus the detection limit
25 that most other labs who do this work has that is 12:52

1 at least two orders of magnitude higher.

2 Q. And so that -- that opinion would apply to
3 any cosmetic talc sold by any retailer, large or
4 small, in the United States at any point in time;
5 correct? 12:53

6 A. Yes. But just to make it careful, it's
7 the -- I'm not aware of any other mines than I've
8 already stated in the United States and I'm not
9 aware of any other mines for cosmetic talcs in
10 Europe or Asia such as Chinese, such as Italian, 12:53
11 such as France, such as Brazil, and such as India.

12 Q. But North America, you're -- are you
13 confident in saying that there's asbestos in every
14 bottle of cosmetic talc that was sold at any time
15 in North America? 12:54

16 A. Any bottle that was sold in North America
17 that used a mine source for cosmetic talc in North
18 America will have some level of asbestos in it,
19 and it just depends on the detection limit is --
20 if we can find it or not. So it's all about 12:54
21 detection limits.

22 Q. Okay. But let me take that a little bit
23 further.

24 Do you have an opinion as to what
25 percentage of that talc is at a detection limit 12:55

1 where you could find it?

2 A. Well, if you look at our overall positives
3 from the different mines, it's typically running
4 anywhere from, I think, a low of 75 percent or so
5 on average of positives up to a hundred percent 12:55
6 positive, depending on what we are looking for.

7 Q. And -- and you believe you've tested --
8 you've tested cosmetic talc from every mine source
9 in North America?

10 A. Yes, sir. 12:55

11 Q. Okay.

12 A. Either I or what others have. So
13 that's -- you know, that's my ongoing opinion. If
14 you -- but it depends on the detection limit.

15 If you have something by TEM that has -- 12:56
16 you have to have a detection limit of a thousand
17 fibers or bundles per gram, we are not going to
18 see it yet, or 2,000 for fibers and grams. But it
19 gets up in the 4- or 5,000 range and as long as --
20 as long as we can hit that detection limit -- 12:56

21 But in order to really quantify it is --
22 we'd have to get a much better detection limit,
23 and so far, that doesn't exist.

24 Q. And wouldn't you have to actually test
25 some -- some bottles of the talc from the actual 12:56

1 manufacturer -- or from the actual supplier? So
2 wouldn't you have to test some Safeway baby powder
3 to confirm your theory?

4 MR. REID: Assumes facts. Overbroad.

5 THE WITNESS: No. If we -- if we had 12:56
6 containers -- say we had ten containers. It would
7 be my opinion more than half of them, we would
8 find positive for some type of asbestos, even if
9 they're all from Montana.

10 BY MR. RISING: 12:57

11 Q. And in order to test that -- do you have
12 this --

13 First of all, did you produce all -- I
14 assume this was test -- did you produce all
15 testing for all mines in North America and all -- 12:57
16 and reference all secondary sources that you would
17 be relying on to make that opinion in this case?

18 A. Well, that's five and a half years' worth
19 of work, close to, you know, 400 and change of
20 samples that have been sourced for every one of 12:57
21 the mines. No, I haven't produced all that.

22 Q. And other than the declaration that we
23 marked as Exhibit 23, do you have anything -- and
24 Exhibit 6, which is your exposure notes, and
25 Exhibit 4, which is your deposition notes report, 12:58

1 do you have anything -- any opinions written
2 down -- are there any opinions outside of those
3 three documents that you are providing with
4 respect to Safeway, other than this opinion that
5 all mines in North America contain asbestos? 12:58

6 MR. REID: Ignores former testimony.
7 Overbroad. Assumes facts.

8 THE WITNESS: You know, I think over the
9 last few hours, we've covered all my opinions
10 about asbestos in the North American cosmetic talc 12:58
11 mines as well as what some would say are the
12 industrial talc mines.

13 BY MR. RISING:

14 Q. And you would agree that for me to test
15 that opinion, Dr. Longo, I would need to see all 12:59
16 of the testing, all of the backup, all of the
17 documents that not only indicate the results of
18 the testing, but what you tested and where -- and
19 the mine source that it came from in order to test
20 your opinion? 12:59

21 You agree with that?

22 MR. REID: Assumes facts and overbroad.

23 THE WITNESS: My answer would be no. This
24 is my opinions, and it's based on all this work.
25 You know, show me -- show me data that -- show me 12:59

1 something that proves me wrong.

2 BY MR. RISING:

3 Q. You understand you're representing --
4 you're testifying on behalf of the plaintiff in
5 this case, Dr. Longo? 13:00

6 A. I understand.

7 Q. And you understand that plaintiff has the
8 burden of proof in this case?

9 MR. REID: Calls for a legal conclusion.

10 THE WITNESS: Well, I'm not an attorney. 13:00
11 I'm just telling you the work we've done. So I --
12 let's -- you know, you're asking me questions on
13 why. I'm telling you why.

14 So it's not clear to me that -- that the
15 amount of documentation that I would have to 13:00
16 produce would be literally almost 400 -- over 400
17 separate analysis that would fill this desk and be
18 nothing different than what you have already seen,
19 except it would just be a bunch more.

20 BY MR. RISING: 13:00

21 Q. But you would agree that the -- you're
22 relying on that to provide your opinion with
23 respect to Safeway in this case?

24 A. Well, that's a "yes" and "no." I'm
25 relying on everything I've stated here, but that's 13:01

1 just more confirmation about my opinions are
2 correct.

3 Q. Are you prepared at trial to -- to sit
4 down and show -- and walk the jury through all the
5 information that you rely on for each mine in 13:01
6 North America, including each mine in Montana, to
7 show them everything that you rely on with respect
8 to forming an opinion that any bottle of talc that
9 comes out of that mine has some level of asbestos
10 in it? 13:01

11 MR. REID: Hold on.

12 Early, could I have that question read
13 back.

14 (Record read by the court reporter.)

15 MR. REID: Overbroad. Assumes facts. 13:02

16 THE WITNESS: I think that would be about
17 a week of testimony. I'm not sure I'm scheduled
18 to do that.

19 I'm prepared to tell the jury just what I
20 have told you. I'm prepared to provide this 13:02
21 information that we have on here and why I believe
22 this. But you, obviously, have an opportunity to
23 cross-examine me and point out what you believe
24 are all the defects in my opinions.

25 BY MR. RISING: 13:02

1 Q. And I just want to make -- I just want to
2 make it clear, Dr. Longo, that part of what you
3 are relying on to form these opinions is testing
4 that you've done on what you call over 400 bottles
5 of -- of cosmetic talc, and you have not provided 13:02
6 that -- the results of that testing or any
7 evidence that the bottles actually come from a
8 particular mine for me to review in advance of
9 this deposition.

10 A. No, I'm not relying on these 400. I'm 13:03
11 just answering your questions. They -- they
12 confirm what I've been telling you. So I don't
13 know what else to tell you.

14 Q. Have you told me everything -- all -- have
15 you provided to me all of your opinions with 13:03
16 respect to Safeway that you intend to offer in
17 this case?

18 MR. REID: Overbroad.

19 THE WITNESS: As I stated earlier about
20 Montana -- and, certainly, Chinese, we have the 13:03
21 same -- the same thing, as most all the Chinese
22 that we have done is J&J. They may be happy to
23 share it all with you. I don't know.

24 But I've given you my basic opinions, you
25 know, as I sit here now. I hope I've covered them 13:04

1 all.

2 BY MR. RISING:

3 Q. Oh, I had another question for you. Are
4 you -- is -- are the mines that J&J gets its talc
5 from in China, are those the only mines that 13:04
6 produce cosmetic talc in China, or have produced
7 cosmetic talc in China at any point in time?

8 A. Well, it's the Guangxi region, and there's
9 probably five mines there. But those five mines
10 have all the same product in it because it's the 13:04
11 same issue with the -- with th Guangxi region that
12 it is with Montana; it's all in the same belt. So
13 it's -- you know, J&J has used a number of the
14 different ones in Guangxi, and so has others, but
15 it's all the same. 13:05

16 Q. And my question is -- like, I understand
17 where J&J gets its talc from -- is there any
18 other -- is it your opinion that those are the --
19 that's the only talc that comes out of China and
20 has come out of China at any point in time? 13:05

21 A. It's the only mines where manufacturers
22 have gotten their cosmetic talc.

23 Q. And what's your basis for that
24 understanding?

25 A. Information provided by Johnson & Johnson 13:05

1 in their discovery as well as others that have
2 used Chinese, such as Chanel from about the year
3 2001 on; Avon -- I forget what year on. Let's see
4 who else. There may be a few others.

5 That's the ones I can think of off the top 13:06
6 of my head.

7 Q. Have you produced the J&J information, the
8 Avon information, or the Chanel information that
9 you just referenced to me -- to us in this case?

10 MR. REID: Overbroad, assumes facts, and 13:06
11 calls for a legal conclusion regarding
12 obligations.

13 THE WITNESS: The same answer as with all
14 our Montana things that you asked me about.

15 BY MR. RISING: 13:06

16 Q. Well --

17 A. -- which would be no.

18 Q. -- for information that you've gotten from
19 a specific manufacturer, that's not publicly
20 available information that we can go get; correct? 13:06
21 We would have to go to that manufacturer?

22 A. I mean, I don't know. I guess.

23 Q. All the information that you were
24 provided, you were provided in litigation;
25 correct? 13:07

1 A. Well, from -- the actual documents from
2 different manufacturers, yes. I'm not sure I
3 would have been very successful at contacting them
4 directly.

5 Q. And do you have any reason to believe that 13:07
6 I would be any more successful in contacting them
7 directly on behalf of Longs?

8 A. I mean, aren't you defense attorneys in
9 this litigation some sort of brotherhood; share
10 and share alike? 13:07

11 Q. I don't know if that's true. Let me --

12 A. You don't know that's true? Oh, man.
13 That's not...

14 Q. But at any rate, you haven't -- you
15 haven't provided that. That's not part of your 13:07
16 file in this case; correct?

17 MR. REID: Vague and ambiguous as
18 to "file."

19 THE WITNESS: Well, I didn't know if it
20 was necessary or not. 13:08

21 BY MR. RISING:

22 Q. You understand that every time you give a
23 deposition that you're expected to provide the
24 file of documents and information that you are
25 relying on; correct, Dr. Longo? 13:08

1 MR. REID: Calls for legal conclusion,
2 assumes facts regarding obligations.

3 THE WITNESS: I have what I am relying on.
4 I have provided it.

5 BY MR. RISING: 13:08

6 Q. Okay.

7 A. I can't anticipate what questions you may
8 ask that somehow -- I didn't know that, you know,
9 you wanted -- that somebody would actually ask for
10 every analysis we've ever done in cosmetic talcs 13:08
11 for the different sources.

12 And I have been giving this opinion for a
13 while now, so I don't know what depositions of
14 mine you may have read or not. So, you know, I
15 can't -- you know, I'm not -- I'm not an attorney. 13:08
16 So alls -- I can only provide what I think is
17 necessary.

18 Q. Let's move -- oh, Dr. Longo, you don't
19 have any opinions with respect to any store-brand
20 talcum powder sold by Lucky; correct? 13:09

21 A. If Lucky sold store-brand talcum powder, I
22 wouldn't have any opinions about Lucky itself on
23 what they were responsible for, for who knew what
24 when about asbestos, or should they have put
25 warnings on, et cetera. 13:09

1 I have containers I have purchased from
2 Lucky's, such as Johnson's Baby Powder. I'm
3 only -- I'm only interested in what they're
4 selling, and it doesn't matter where it came from.
5 It doesn't matter if the container came from 13:09
6 Lucky's or Rite-Aid or whoever.

7 Q. And my question is a little -- I guess let
8 me put a finer point on it.

9 You haven't tested any Lucky store-brand
10 baby powder and don't have any opinions about 13:10
11 testing of Lucky store-brand baby powder that you
12 are providing in this case; correct?

13 A. I'm not aware that Lucky's made a
14 store-brand baby powder. However, hypothetically,
15 if they did, I would have the same opinions about 13:10
16 the store-brand baby powder that I have with
17 Safeway; if it was from some mine in North America
18 or the mine in South America, I would have
19 opinions that, yes, it more likely than not would
20 have asbestos in it. 13:10

21 Q. And, again, that's based on documents that
22 you have showing the mine sources for -- for each
23 of the cosmetic talc samples that you've tested
24 over time, and that -- that's in excess of
25 400 bottles; correct? 13:10

1 A. And information, you know, we received
2 over -- you know, from different manufacturers on
3 their source as well as the sources from the
4 distributors, where they bought a lot -- you know,
5 where they purchased the talc, what their source 13:11
6 was, you know, Whitaker, Clark & Daniels or
7 others.

8 Q. And just to be clear, none of that was
9 produced as part of your file that you produced
10 for your deposition in this case; correct? 13:11

11 A. That is correct. But you ask me, and I
12 tell you, and, you know, now that -- we are up to
13 an ungodly amount of paperwork.

14 Q. I understand.

15 A. I mean, it would have been a lot easier, 13:11
16 of course, that other than person most
17 knowledgeable just saying Montana had actually
18 given where in Montana. It would have been easier
19 to deal with that, or, you know, China. But
20 that's not something we got from -- from the 13:11
21 information from the actual company.

22 Q. I want to move on to the Longs Baby Powder
23 analysis.

24 A. Oh, I thought we had gone -- I thought we
25 got through that. Okay. I'm just kidding with 13:12

1 you.

2 Q. Do you have that in front of you? Can you
3 pull that binder back out?

4 A. Excuse me?

5 Q. Can you pull that Longs Baby Powder 13:12
6 analysis back out, and we'll kind of walk through
7 it?

8 A. Sure.

9 Q. Just to make clear for this, this was --
10 this was provided in Prudencio, which is a 13:12
11 different case, and it has a -- I think it's at
12 page -- starting at page 23, it has potential
13 asbestos exposure to the use of Longs Baby Powder
14 containers. That's all related to a different
15 plaintiff, isn't relevant to this case; is that 13:13
16 correct?

17 A. Yes. I mean, you could take -- based on
18 this analysis, you could take "Christina
19 Prudencio" out and put, you know, "Mr. Eagles" in
20 there. It doesn't change anything. 13:13

21 Q. So you're fine just to take one
22 plaintiff's exposure analysis from one case, cross
23 out the name, put in another plaintiff in the
24 current case, and that's the exposure analysis?

25 A. Well, the exposure analysis is based on 13:13

1 our results. It's not as cavalier as saying, "I'm
2 going to cross out one versus the other." It
3 doesn't change the analysis, one individual using
4 this product versus another individual. So the
5 analysis doesn't change. 13:14

6 Q. Well, don't different people -- didn't you
7 do a different exposure analysis in this case?

8 MR. REID: Assumes facts and overbroad.

9 THE WITNESS: Hold on. Oh, god. I hate
10 this. 13:14

11 BY MR. RISING:

12 Q. That's the problem with those big binders,
13 Dr. Longo.

14 A. I know. And it needs to be changed out.
15 So... 13:14

16 Q. I'm not going to go through that, but is
17 it your opinion in this case that we can just
18 cross out a plaintiff in a different case who
19 was -- had a totally separate experience with
20 Longs Baby Powder and just write in "Mr. Eagles"? 13:15

21 A. I don't recall how often, you know, the
22 Prudencio -- in Prudencio that this was used as
23 compared to the -- compared to the Johnson's Baby
24 Powder analysis, but the analysis of these 15
25 samples do not change. 13:15

1 If you would have asked me without looking
2 at that and say, "What is your opinion about
3 that," I would have said that, you know,
4 "Mr. Eagles would have had a significant exposure
5 over background based on these results." 13:16

6 Q. Let me ask you just about -- now, first of
7 all, you don't recall -- is there any way to tell
8 from looking at one of your reports whether you
9 actually looked at the samples at issue; meaning,
10 you looked -- you sat down at the microscope and 13:16
11 looked at the samples?

12 A. I don't sit down from start to finish to
13 analyze anything like this. I do sit in, and when
14 there is a question, you know, "What do you think
15 of this; is this something that -- that you 13:16
16 feel -- you know, is it in the range," that sort
17 of thing -- but no, I don't sit down and do from
18 the start to finish analysis for PLM or --

19 Q. I understand start-to-finish analysis, but
20 do you -- but as you sit here today, do you recall 13:17
21 whether or not you actually looked at, through the
22 microscope, the Longs Baby Powder in order to form
23 your opinions about Longs in this case?

24 MR. REID: Overbroad, assumes facts,
25 incomplete hypothetical. 13:17

1 THE WITNESS: I don't remember what
2 happened, you know, over two years ago. The
3 opinions are based on this data that -- from the
4 people that I have trained over the years and in
5 charge of. So the data itself and all the 13:17
6 pictures and the -- and how much, et cetera. You
7 know, I review every piece of data in here, unless
8 I missed something.

9 But I couldn't tell you now -- probably
10 did, but I couldn't tell you now if, in fact, I 13:18
11 sat down and took a look through the microscope on
12 any of these.

13 It wouldn't be to base my opinion on
14 anything. My opinion -- it would be, right at
15 that moment, what is my opinion -- what is my 13:18
16 reaction to what I am looking at? Is that
17 something that is -- that I would call chrysotile
18 or I would call fibrous talc or I would call --
19 you know, if it happens to be on the amphibole
20 side, I would call tremolite or anthophyllite or 13:18
21 what have you.

22 BY MR. RISING:

23 Q. And when Mr. Hines was walking you through
24 some of the slides in the Longs report, with
25 several of them, you said, "I'm not -- if we could 13:18

1 look through the microscope, I could show you
2 better where -- why these were bundles or why they
3 had splayed ends" or something to that effect. Do
4 you recall that?

5 A. I recall it, but that's not what I -- what 13:19
6 I said was --

7 And this was one tremolite structure
8 where -- out of -- I don't know -- maybe over a
9 thousand data -- thousand different pictures --
10 hundreds and hundreds of pictures and 13:19
11 photomicrographs. And it was only one, and -- and
12 it was one tremolite bundle where it was pretty
13 thick, but you had to look -- you had to look and
14 see those corners.

15 But you're always -- it's easier when 13:19
16 you're sitting there at the microscope because you
17 can change the focal plane, you can go up in
18 higher mag, et cetera --

19 And the individual who did this work is an
20 incredibly experienced TEM analyst, so I don't 13:20
21 have any problem with it -- but I can still see
22 the indication that is, in fact, a bundle.

23 Q. And that kind of brings me to the point.
24 You mentioned these kind of fancy microscopes that
25 you have, the Leica ones. I think I've seen them 13:20

1 in a number of your reports. When did you first
2 get those?

3 A. We must have got them right around --
4 just -- I mean, not too far from this analysis
5 because the -- I can see that how it's set up, as 13:20
6 I recall. And I'd have to check for sure, but I'm
7 pretty sure these are the new scopes -- or new
8 scope that was used here.

9 Q. And so you're -- what the viewer is kind
10 of seeing when they're looking at these images of 13:21
11 what -- what you're opining is either chrysotile
12 asbestos or tremolite asbestos, it depends on the
13 quality of the microscope; is that fair to say?

14 MR. REID: Misstates. Mischaracterizes.

15 THE WITNESS: Just give me a second. I 13:21
16 want to see...

17 I'm just looking to see if we actually...

18 BY MR. RISING:

19 Q. If you look at page 12 of 33.

20 A. Well, I just want to look and see if -- 13:21
21 you know, I have to look when these microscopes
22 were installed.

23 Okay. Page 12. I'm sorry.

24 Q. You just have this reference, there. It
25 says, "At MAS, we have new Leica DM4 P" -- 13:22

1 A. Oh, okay, yes. These were fairly brand
2 new at the time.

3 Q. And it talks about it's equipped with
4 certain things. So, like, the -- which I think
5 is -- you're saying is important to be able to 13:22
6 see.

7 In particular, for your chrysotile
8 testing, your heavy liquid density separation,
9 you've -- you've opined that it is important to
10 have a microscope that's at or above the quality 13:22
11 of the microscopes that you utilize; correct?

12 A. It makes it very -- it makes it easier.
13 We were finding chrysotile before we got these new
14 microscopes, but in order to really help us, we
15 purchased a -- what they call flat or infinity 13:23
16 lens, 4- -- I think at 4- -- 400X. But at that
17 time, for that -- it's an old Olympus.

18 But this particular manufacturer made flat
19 objective lenses or infinity lenses not only for
20 the higher magnification but the 10X central-stop 13:23
21 dispersion lens, which makes a big difference in
22 being able to see some of the smaller structures
23 and still be able to do dispersion staining and be
24 able to get the appropriate colors.

25 Also, it has an LED light source that 13:23

1 provides a truly white light instead of some of
2 the yellows -- a slight yellowness you can get
3 with tungsten lights.

4 It has a very high-resolution camera built
5 into the microscope, as well as it comes with a 13:24
6 very high- resolution monitor so that it allows
7 you to see some of the structures a little bit
8 better.

9 For example, you know, you look at
10 Segrave's PLM analysis in this case and then look 13:24
11 at ours, the resolution that we have is such a
12 higher quality, especially at the -- you know, the
13 400X or the 600X, on what we can see.

14 So, to me, it's a much more precise PLM
15 microscope. It's like anything else; when, you 13:24
16 know, new technology comes along where you get
17 better resolution, better objective lenses, you
18 know, it's just -- we try to keep up with the
19 advances in the techniques that -- advances in the
20 equipment. 13:25

21 Q. And how is it that -- how is it that the
22 jury -- when you present this to a jury, how is it
23 that the jury can be sure that they're seeing what
24 you were seeing -- or what your analysts were
25 seeing when they looked through the microscope? 13:25

1 A. Because we'll have pictures of it. And,
2 also, the jury will be able to understand how
3 much -- how technology gives you much better
4 resolution by just comparing Mr. Segrave's
5 photographs with ours. And also can show how 13:25
6 Mr. Segrave's PLM analyst is misidentifying stuff.

7 Q. And I'll get to that in a second.

8 But can you turn -- turn to page --
9 page 27 with your Table 1.

10 A. I have to take deep breaths before I throw 13:26
11 this thing across the room. I've got to give it
12 to my -- to somebody to get me a new one of these
13 that doesn't screw up on me.

14 Okay. I'm at Table 1.

15 Q. Just initially, this has -- this has 13:26
16 the -- the sample number, the product, the size.
17 And you have here "Size of JBP containers."

18 Do you mean -- is that a typo?

19 A. Oh. Of course.

20 Q. Are you certain, or did you potentially 13:26
21 mix up Johnson's Baby Powder testing with Longs
22 Baby Powder testing?

23 A. No. It says, "Source of container" down
24 the right-hand side, "Longs Drugs."

25 No, I'm sure I grabbed that from another 13:27

1 report just to have the stuff going across, and
2 it's always one or two or three typos.

3 Q. And then you have here, "Year of
4 manufacture."

5 That doesn't really apply to the 13:27
6 information you have here; correct?

7 A. I'd have to get to the containers and the
8 affidavits to see what they said, when they may
9 have purchased it.

10 So I've forgotten where that information 13:28
11 came from, but it may well be in the container.

12 Q. And I'll represent to you that it came
13 from the declarations. But what I am saying is,
14 it doesn't really give you a year of manufacture.
15 It just gives you a range for when these people 13:28
16 could have potentially -- they believe or recalled
17 they could have potentially purchased it?

18 A. Yeah. Unless it's on the container, that
19 is correct.

20 Q. So -- and we saw earlier that Mr. Eagles 13:28
21 used however many bottles of Longs Baby Powder,
22 according to his deposition testimony, through
23 sometime in the 1980s. So there's not really any
24 of these that's more likely than not from a time
25 period that Mr. Eagles used Longs Baby Powder; 13:28

1 correct?

2 A. I don't know about more likely than not.
3 You know, he said '80s, some in the '90s. But,
4 again, if it is all from some combination of
5 Montana and Chinese, it really doesn't matter. 13:29

6 Q. Well, and let me -- but I just want to
7 make clear here, you did say -- he did say that he
8 stopped using Longs Baby Powder in the 1980s;
9 correct? That was at least according to his
10 deposition testimony. We've already went through 13:29
11 that?

12 A. I believe it may have been 1980s. If it's
13 in 1980s, that's fine.

14 Whatever the mine source is through
15 here -- I'm sure I have it somewhere, what the 13:29
16 mine source is -- it really doesn't matter.

17 Q. And you have -- you have nine of these
18 bottles that don't have any date whatsoever;
19 right?

20 A. Correct. 13:30

21 Q. And then -- and then one is after 1987, so
22 it's possible that he could have -- it's a bottle
23 representative of a time period that he could have
24 purchased a bottle, but it's also more likely than
25 not, given that it's just after, that it could 13:30

1 have been in 1990s or 2000s; right?

2 A. Could have been in the 1990s; could have
3 been in the 2000s, 1980s.

4 Q. We just don't know; right?

5 A. Again, we don't know, but it is an issue 13:30
6 without -- to me, without consequences.

7 Q. Well, to the extent that the jury wants to
8 put any weight on the fact that we did or did not
9 test bottles from a time period that Mr. Eagles
10 could have even purchased them, none of these 13:30
11 bottles is from that -- from a time period
12 necessarily; right?

13 MR. REID: Argumentative. Assumes facts.
14 Vague, ambiguous, and calls for a legal
15 conclusion. 13:31

16 THE WITNESS: Again, I would -- hopefully,
17 what I could tell the jury is that the mine source
18 is more important than what the dates are. So the
19 ones we have dates on, as long as we have the
20 similar -- the same mine source, it doesn't -- to 13:31
21 me, it doesn't matter. But, you know, that's up
22 to the jury to decide.

23 BY MR. RISING:

24 Q. And you'd want to have good evidence of
25 the mine source? For example, like, with the 13:31

1 Avon, you have the actual formula; right?

2 MR. REID: Vague, ambiguous as to "good
3 evidence."

4 THE WITNESS: Well, it would be nice if
5 Longs provide their formulas. So why would I have 13:31
6 more information than the manufacturer?

7 And why -- we've got the container codes.
8 Longs ought to be able to go through their records,
9 because those all -- container codes and tell you
10 exactly what date this was manufactured. But I 13:32
11 haven't seen any of that yet.

12 So you're putting a burden on me that the
13 information is right there. There's the
14 containers' codes.

15 BY MR. RISING: 13:32

16 Q. I am not putting a burden on you,
17 Dr. Longo. I'm just asking you, would you prefer
18 to have a strong link between the mine that it
19 came from, strong -- strong evidence, like -- like
20 what you believe you have for Avon? 13:32

21 MR. REID: Argumentative. Assumes facts.
22 Vague, ambiguous as to "strong evidence."

23 THE WITNESS: I believe the evidence I
24 have is strong enough. Would it be nice that more
25 information was provided from the manufacturer so 13:32

1 that we wouldn't have -- even have this discussion
2 and -- so I believe the information we have is
3 plenty of evidence -- to me, strong evidence --
4 and it will be up to the jury to decide one way or
5 the other. 13:33

6 BY MR. RISING:

7 Q. What is that information that you have
8 with respect to where the Longs Baby Powder was
9 mined?

10 A. Well, we have -- 15 containers all have 13:33
11 asbestos in them, and it's all similar. We have
12 four that have -- let's see -- one, two, three,
13 four, five, six, seven -- I think we have four or
14 five that have tremolite in them.

15 Q. Oh, and I wanted to ask you about that, 13:33
16 Dr. Longo.

17 A. And testimony is going to be that no
18 matter where you mined it from, it's going to have
19 some level of asbestos in it.

20 In this particular case, we've got 15 -- 13:33
21 we have 15 containers of yours that have asbestos
22 in them, all 15.

23 Q. And that's -- you found -- you found 15
24 that had chrysotile in all 15; correct?

25 A. Correct. 13:34

1 Q. And then you found tremolite in five; is
2 that correct?

3 A. That is -- was it five? It may be four.

4 Q. Look at Table 2, page...

5 A. One, two, three, four, five. There. You 13:34
6 know it better than me. I thought it was four.

7 And five with tremolite in it. So...

8 Q. Now, these numbers, when you have, like,
9 the 9,320 or the 9,380, 9,330, does that indicate
10 to you that that was one fiber or what you call 13:35
11 one bundle of tremolite was found?

12 A. Yes.

13 Q. And then -- and then -- so the -- the
14 18,700, that's two fibers of tremolite?

15 A. Correct. And the 27,700 is three. 13:35

16 Q. And that would have all come from -- I
17 realize you don't shake it, but you turn it upside
18 down, and you get -- you get a couple grams out,
19 and that's how you test it?

20 A. Yes, sir. 13:35

21 Q. You don't dip down in the bottom of the
22 bottle and pull a sample from there; correct?

23 A. No. We do not -- we do not damage the
24 bottles.

25 Q. That's -- right. But you basically -- you 13:35

1 get all your samples out of the shaker top; right?

2 A. Correct.

3 Q. And if we look at these, do you recall
4 that you got -- you see how the MAS sample numbers
5 go 1, 2, 3, 4, and then they start over again, 1 13:36
6 through 11?

7 A. Yes.

8 Q. And that's because you received four in
9 one batch from Mr. Satterley and then the next
10 eleven in another batch from Mr. Satterley? 13:36

11 A. That is correct.

12 Q. And do you have any understanding of what
13 Mr. Satterley or his -- his employees or the other
14 attorneys who gathered and purchased these bottles
15 from their owners -- what they did with them in 13:36
16 the interim?

17 A. From the time frame they purchased them to
18 the time frame they sent them to me?

19 Q. Correct.

20 A. I would assume they're in their office 13:36
21 somewhere.

22 Q. Do you have any -- you've been to
23 Mr. Satterley's office, I assume?

24 A. Yes, sir.

25 Q. And is there a place, an evidence room or 13:36

1 something, that you have seen where they keep
2 their sample bottles or asbestos-containing
3 products for cases that they're litigating?

4 A. I mean, I don't ask about their evidence
5 room. I know that to get in that office, you have 13:37
6 to be -- if you're not -- you've got to be
7 escorted in. You've got to be -- known that you
8 are showing up. But I don't know about any
9 evidence room or not. You have to ask
10 Mr. Satterley. 13:37

11 Q. I may.

12 But you're not aware of where
13 they would -- they sort of store their either
14 samples of talcum powder products or samples of
15 brakes? 13:37

16 I mean, first of all, it's your
17 understanding that the Kazan law firm, where
18 Mr. Satterley is, is -- they're mostly an asbestos
19 plaintiffs side law firm; right?

20 A. I would agree. 13:38

21 Q. And they -- and they have cases with all
22 different kinds of asbestos products? Do you
23 agree with that as well?

24 A. I'm sorry. Could you repeat that?

25 Q. They have cases of asbestos exposure with 13:38

1 all different kinds of products; friction
2 products, brakes, talcum powder, other products
3 that -- that people allege provided them with
4 asbestos exposures?

5 A. That's sort of broad. The last time I 13:38
6 actually received asbestos products, I mean, like
7 what you're talking about, brakes, et cetera,
8 might have been in 2015 or 2016.

9 Q. Okay. But certainly, you've received a
10 lot of talc -- cosmetic talc products from the 13:38
11 Kazan law firm -- from the Kazan law firm in the
12 last two, three years; right?

13 A. I don't know how many out of the 400. You
14 know, 15 here... so yeah, there's been a number of
15 samples. Less than -- way less than 100. 13:39

16 Q. Approximately how many from the Kazan law
17 firm since --

18 A. I'd say less -- you know, maybe 50.

19 Q. And you just don't know one way or the
20 other how they store them at their law firm? 13:39

21 A. You know, are they sitting out? Have I
22 ever seen them when I've been there the few times?
23 No.

24 Do I think that has been anything that
25 would have been problematic about -- somehow 13:40

1 they're being tampered with or that it's sitting
2 somewhere that, magically, asbestos would get in
3 it of any sort? No. That's a brand -- that
4 building was built way after they were using any
5 asbestos products, sort of a new law office, maybe 13:40
6 in the early 2000s was built. There was no way
7 that it was contaminated by anybody.

8 Q. Well, you're testing -- they're sending
9 you cosmetic talc -- cosmetic talc bottles, and
10 you're finding asbestos in those cosmetic talc 13:40
11 bottles; right?

12 A. Correct. So it's there.

13 Q. And some of those are opened and have been
14 opened, right, when you receive them? For
15 example, all the Longs bottles; right? 13:40

16 A. Correct.

17 Q. And you'd agree that if those are not
18 properly sealed and stored together, they have a
19 possibility of cross-contaminating each other;
20 right? 13:41

21 A. No, I don't agree with that. That would
22 be impossible.

23 Q. What is it that you do to the lid
24 of the -- like, how do you make sure that you are
25 not getting anything from -- that's sitting on top 13:41

1 of a used bottle of baby powder?

2 A. Sitting on top of a used -- you mean,
3 like, somebody has stacked two on top of each
4 other?

5 Q. No. Somebody left a bottle in a -- you 13:41
6 know, somebody left a bottle out anywhere,
7 somewhere in their garage, wherever, and it had
8 something on top of it. I'm not even saying
9 asbestos, just dust or something. How do you make
10 sure that the talc that you are shaking out isn't 13:41
11 picking that up?

12 A. Well, you have to start looking at this at
13 a practical level. If you look at our analysis
14 and then look at the size of the holes and you
15 look at how much we're finding in there per gram 13:42
16 and then how much would the whole bottle hold and
17 go, "How did that happen, that you would have that
18 concentration in some area be released and somehow
19 make its way down into holes and contaminate these
20 samples?" 13:42

21 Q. Well, in several of the samples, you
22 found just -- I'm sorry. Go ahead.

23 A. That just did not happen. Did not happen.

24 Q. But in at least three of the samples, you
25 only found one fiber; right? 13:42

1 A. Yeah, we found one fiber. But in order to
2 find that one fiber, you have to have a detection
3 limit of about 7-, 8,000 per gram. And then you
4 look at how many grams you have in there. So
5 we're talking about millions -- or hundreds of 13:43
6 thousands to get in there.

7 And where did the tremolite come from
8 without -- if it's an accessory mineral for
9 something, why not -- how come you're not finding
10 what else -- where the tremolite came from? 13:43

11 Q. So have you -- you've ruled out possible
12 contamination, for the tremolite at least?

13 A. Absolutely, as well as the chrysotile.
14 You'd have to have some source of chrysotile
15 that's being continuously released at very high 13:43
16 concentrations and somehow making its way through
17 the holes in the container because somebody left
18 it open, sitting out in the -- somewhere that
19 there's chrysotile that's being routinely
20 disturbed. 13:43

21 Q. Maybe I'm misunderstanding your test, but
22 my understanding is you did the TEM test, and you
23 found one fiber. Right?

24 A. Correct.

25 Q. And then everything else you're talking 13:43

1 about is math; right?

2 A. Well, it's your analytical sensitivity or
3 your detection limit. And, you know, are you --
4 is that the only fiber in the entire bottle, or is
5 there an analytical sensitivity, where you go, 13:44
6 "Okay, to find this, I've got to have this much in
7 here for me to find it."

8 Q. And -- but that's all math and formula;
9 right? You didn't find extra fibers; you're just
10 applying a formula, because you found one in a 13:44
11 number of grids, based upon the amount of powder
12 you were testing; correct?

13 A. Yeah, how much we had tested, et cetera.
14 It's, you know, the same thing if you go take a
15 pint of water out of Lake Michigan and you go test 13:44
16 it and you find ten parts per million lead. Well,
17 they didn't test the entire Lake Michigan, but
18 that would say is, "Well, Lake Michigan has got
19 lead in it."

20 All analytical chemistry, especially 13:45
21 environmental, does this. You can't ever test the
22 whole thing.

23 Q. You could test it twice or three times,
24 though, couldn't you?

25 A. Certainly. You could test it as many 13:45

1 times as you like.

2 Q. And you tested it once; right?

3 A. Yes, sir, we did.

4 Q. I assume you looked at Alan Segrave's
5 report, and you have some criticisms of 13:45
6 Mr. Segrave's analysis?

7 A. Yes.

8 Are we done with Longs? I can put this
9 somewhere?

10 Q. Yeah. I'm going to make you pick it back 13:45
11 up just to see you work out, but other than -- but
12 yeah, you're good for now.

13 A. Well, it's a back issue.

14 Q. That's a big binder.

15 A. Yes. 13:45

16 Yes, let me -- you know, you can start on
17 page 8. You know -- you know, he goes -- page 8,
18 paragraph Perrigo 1, 2, 3, 4 -- 5 talks about what
19 great analytical tests have been done.

20 But he also talks about OSHA here, where 13:46
21 they said, you know, only analyze asbestiform by,
22 you know, PCM and the air samples, et cetera. But
23 they never tell you in the protocol how to do
24 that. They have made no -- there have been no
25 adjustment or anything by OSHA to actually give 13:46

1 you a protocol to tell the difference between,
2 quote, asbestiform and nonasbestiform.

3 Infrared testing, that is not a method
4 that is really recognized by anybody as being
5 successful. 13:47

6 And, of course, all the problems with J4-1
7 testing protocol. Detection limits by XRD are
8 .1 percent, best, for tremolite. Anthophyllite is
9 about .2, .3. Chrysotile is .4, .5. So J4 is not
10 something that is very reliable. 13:47

11 Let's see here.

12 Page 9, you know, it's -- Segrave uses
13 a -- uses the EPA/R-93 TEM method, he says, and
14 following that, to be asbestiform, it has to be 20
15 to 1, by that TEM method. 13:47

16 He leaves out the fact that if you go to
17 the EPA/R-93/600 and look at the asbestos -- look
18 at the TEM analysis -- and nobody bothers looking
19 at what they reference for the TEM analysis. They
20 don't reference the PLM analysis. They do not say 13:48
21 20 to 1, to a hundred to one. What they say is,
22 use the AHERA TEM method, which is greater than or
23 equal to 5 to 1, et cetera. So he's wrong on that
24 area.

25 And I know we don't have much time, so I'm 13:48

1 just going to go to some of the -- if we go to
2 page 10, he talks about the FDA conducted a study,
3 27 samples, cosmetic-grade raw talc, 34 samples,
4 didn't find anything.

5 The -- 2009, 2010, the detection limit 13:48
6 there for finding one was, I think, about 10
7 million, where ours is 5- to 7,000. It's not
8 surprising that you're not finding anything.

9 The New York State 1988-1 (sic) PLM and
10 198-4 TEM is an asbestos floor tile method. 13:49
11 Doesn't say anything about talc in it. Again,
12 they say nothing was found.

13 The Interagency Working Group on Asbestos
14 in Consumer Products, he says that the white paper
15 is currently in comment period and further 13:49
16 specificity on the analytical approach may be
17 forthcoming.

18 It's not in comment period any more. They
19 had issued their final white paper in December of
20 2022. That method has been now kicked over to 13:49
21 ASTM D22-07 to write the protocol. There is no
22 more comment -- comment section that I am aware
23 of.

24 And, again, I'm skipping over stuff
25 because I know we don't have a lot of time. 13:50

1 You know, same thing; infrared is -- is
2 not a technique that is sanctioned by anybody
3 other than the USP.

4 Q. Where are you at, Dr. Longo?

5 A. Oh, I'm sorry. I'm on, "Perrigo 13:50
6 relied on" -- I'm on page 14, the -- go down to
7 where you've got the little bullet points:

8 "Perrigo relied on testing supplied
9 by supplier/mining entities, and the
10 testing criteria met or exceeded the 13:51
11 requirements set forth in J4-1 method."

12 The J4-1 method has a little funny thing
13 in it I don't think people realize, that if it's
14 positive by XRD for amphiboles, then you go to
15 PLM, polarized light microscopy, what the first 13:51
16 thing J- -- the first thing they say is it must be
17 milled down to -- I think a minus 325 size, which
18 only has the probability of reducing the amount of
19 tremolite or anthophyllite asbestos, because it's
20 brittle. 13:52

21 And you don't need to mill anything. You
22 can take a raw talc sample, as long as it's not
23 rock. But anything with cosmetic doesn't need to
24 be milled anymore.

25 Again, the last bullet point: 13:51

1 "2010, FDA tested products and talc
2 ores sourced from Montana and other talc
3 regions... no asbestos was observed in
4 these talc (sic)."

5 Detection limit was easily 10 million. We 13:52
6 only -- out of these 400 samples, I think we have
7 two, maybe three now, that was -- that was either
8 10 million or above, three or four.

9 I'll skip ahead to where he's attacking
10 our work. 13:52

11 Q. Just give me the page number, Dr. Longo.

12 A. I'm just looking for when he starts on our
13 stuff.

14 Okay. Page 17 of 84, first line, we're
15 not accredited by the National Voluntary 13:53
16 Laboratory Accreditation Program or American
17 Industrial Hygiene Association, AIHA.

18 We were accredited up to two years ago.
19 We were one of the first companies and -- when
20 they started their first accreditation to get it. 13:53

21 But we had a -- we had an NVLAP -- last
22 audit we had, like, two years ago, asked us why we
23 were even bothering with this, because they only
24 come in and look at things that -- samples that
25 are for schools, which is asbestos-added products. 13:53

1 We haven't done any school work, AHERA school PLM
2 work in four or five years, so they suggested we
3 drop NVLAP because we were just wasting our money
4 since they didn't have anything to look over.

5 And now we're accredited, doing the exact 13:54
6 same PLM analysis, because we get it from the
7 exact same source, by A2LA.

8 So he's really overstating here in how --
9 "dramatically increases the likelihood of gross
10 errors." You know, that's just sort of, my 13:54
11 opinion, mind up. Our laboratory doesn't make
12 gross errors.

13 Item 2, he's right; the government agency
14 to quantify asbestos in talc -- CSM -- you know,
15 the only government agency right now that -- where 13:54
16 you have to have heavy liquid density is the State
17 of New York for looking for tremolite and
18 vermiculite.

19 But it would be hard for a government
20 agency to do this method in 1973, 1974, after 13:55
21 Johnson's -- J&- -- they developed the heavy
22 liquid density separation for chrysotile, the CSM
23 method, and after they figured out -- and I've
24 got the -- it's in the memo -- figured out that
25 the concentration method is not in the best 13:55

1 interests of J&J's worldwide talc market. In '74,
2 they stated that.

3 They deep-sixed it and never told any
4 government agency that they had already developed
5 a method for analyzing chrysotile by PLM. FDA 13:55
6 struggled developing it. J&J never told them they
7 already had one.

8 Okay. Number 3, wrong. We -- we
9 developed the -- when we had the PLM method, we
10 used RG-144 Calidria, which has an average size 13:56
11 that's longer but also has smaller -- like the
12 SG-210. We actually made various concentrations,
13 analyzed it by PLM so that we knew what the weight
14 percent was versus what we put in it.

15 So Alan Segrave is wrong about that, that 13:56
16 we never -- you know, we're "prone to highly
17 suggestive estimates for what an analyst 'sees'
18 and, therefore, not repeatable."

19 If you go through our analysis, you will
20 see our ranges of weight percent we're finding for 13:57
21 chrysotile is in a bracket of -- not all over the
22 board.

23 Let see. What else?

24 You know, Number 5, we "are a contributing
25 factor to erroneously misidentifying talc as 13:57

1 chrysotile," that's not true, of course.

2 And Number 6, you looked at our PLM
3 analysis. It says 21 degrees centigrade. We
4 record every time we do a PLM analysis on what the
5 temperature is that day. I'm not sure why he says 13:57
6 that. Our microscopes don't have a strong heat
7 source. All the analysis here were done with LED
8 lights. I think anybody who's ever changed --
9 felt an LED light, even the big ones, they're
10 hardly even warm. 13:58

11 And this is just a petty thing: There's
12 no such thing as RI oils. These are not oils.
13 They're fluid. But that's petty.

14 "Room temperature versus temperature at
15 the stage of the microscope during analysis is 13:58
16 variable due to the strong heat source," we
17 already talked about that. We don't have a strong
18 heat source.

19 He talks about the Johns-Manville document
20 from 1973, "Since the alpha index is less than 13:58
21 1.574, they would be mistaken for chrysotile."

22 I'm not sure that's true. I know in that
23 document, 1973, they talk about how easy it is to
24 differentiate between fibrous talc or talc plates
25 on edge versus chrysotile. I just looked at this 13:59

1 late last night, so...

2 Number 9 is really puzzling to me:

3 "Dr. Longo claims to have followed
4 the ISO 22262-1 method where PLM analysis
5 specifies using a magnification of 400 13:59
6 times; however, Dr. Longo testified use of
7 a high-powered objective lens. Notably,
8 higher magnification above 400 to 500X" --
9 that's not true -- "gives rise to the
10 distortion of dispersion staining colors 13:59
11 and is not specified in the ISO 22262-1."

12 Well, we do dispersion staining at a
13 magnification of 100X because at this time, the
14 only dispersion staining central-stop objective
15 lens that anybody could get was 10X. With the 14:00
16 binoculars on top of the optical microscope makes
17 it 100X.

18 As somebody that -- Mr. Segrave, who is
19 supposed to be schooled and an expert in PLM
20 analysis, I'm not sure why he would say such a 14:00
21 crazy thing.

22 Let's go on to Number 10; again, he's not
23 following the ISO 22262-1.

24 "Section 7.2.3.1 of the method
25 requires examination of the bulk material 14:00

1 by stereomicroscopy for observed fibers
2 and subsequent analysis representative
3 mounts by PLM, including random mounts."
4 The size of the chrysotile fibers we're
5 seeing and the size of the talc bundles we're 14:01
6 seeing are not in a range that you can see with a
7 stereo optical microscope, where the highest
8 magnification is usually 40 times. So that is for
9 asbestos-added products only. You are never going
10 to see any of this. 14:01

11 And we do take random mounts. We take
12 three mounts that randomly come off a filter in
13 different spots. So it's all random.

14 Let's go on here, see what's in the next
15 section. 14:01

16 Point counting in commercial bulk
17 materials. If you want to do point counting,
18 that's fine. Over the years, we never used point
19 counting because it's not as accurate. And if you
20 look at the ISO 22262-1, it will tell you if you 14:02
21 have different size materials, type materials,
22 point counting isn't very accurate. I dispute
23 that's something that you should be doing.

24 And point counting does not get you to the
25 detection limit like the method we use, which is a 14:02

1 standard method.

2 All right. Let's see what is next.

3 Q. Dr. Longo, if you want to kind of -- this
4 goes on for -- I realize you have a lot of
5 criticisms here. 14:02

6 A. I'll tell you what. Let's make it
7 something that's kind of interesting to me. I
8 just got to find out what I did with it.

9 Q. Kind of leave it to what you intend to
10 testify about if you come in next week. 14:03

11 A. Okay. I went through all his PLM analysis
12 where they -- we'll go to the first one, which is
13 their PLM -- well, the first one I got on the top
14 here, 5 -- 1A. 1A, they say they have -- and I'm
15 looking at page 15 of 297, where it is their -- 14:03
16 and I'll just show you real quick. It's kind of
17 their count sheet.

18 They said they found two talcs that has a
19 birefringence of 0.024 and 0.02. There is no
20 fibrous talc out there, because they do call it 14:03
21 elongated.

22 And what's kind of significant of this is
23 going to page -- where they say elongated talc.
24 I'm assuming -- it's very unclear what we have
25 here, because if you look at this, it's taken at 14:04

1 very poor magnification on which ones they're
2 talking about for elongation.

3 Q. What's the page number you're looking at?

4 A. I'm looking now at page 30 and 32. Their
5 refractive indices are pretty close to what I 14:04
6 would have called chrysotile. That is not fibrous
7 talc. The birefringence is not high enough. And
8 talc does not exist in the .02 to .22
9 birefringence. But it's very difficult for me to
10 see their elongation, exactly where this -- what 14:04
11 particles they're looking at. That's not fibrous
12 talc.

13 Next one I have here is .005. We got a
14 gamma of talc. That's not talc we're looking at
15 there. 14:05

16 And then I'm looking at the alpha talc,
17 which, as far as I can tell, it's at the
18 extinction limit because it's not visible
19 anywhere, you know, the perpendicular one, if you
20 move -- if you move the particles. So it's 14:05
21 literally at the extinction limit of 1.550 in
22 those two talcs.

23 So they had 1.548 for alpha. That's not
24 possible because it would not be at the extinction
25 limit unless there's something else on here that 14:06

1 we can't see.

2 And then it has for gamma 1.568. I would
3 have put that a little bit lower.

4 But again, I can't tell on these
5 elongation. It could be a representative photo 14:06
6 here.

7 Certainly on the one, I can see, but I
8 don't have the other one. But that is not fibrous
9 talc. That looks just like chrysotile. The
10 refractive indices aren't high enough. 14:06

11 Then we have -- all right. Go to 002A.

12 Q. Dr. Longo, what I'm going to do is I'm
13 going to mark --

14 MR. RISING: Early, what's the next one in
15 order? 14:07

16 A. 002A, I'm not doing the long number, they
17 say there's two here that is talc with alpha and
18 gamma. 1.5- -- you know, one at 1.551, and 1.550,
19 it's right at the extinction limit.

20 (Reporter clarification.) 14:07

21 THE WITNESS: Then gamma is 1.573, and the
22 second one is 1.573. They have a birefringence
23 range of 0.022 to 0.023, calling that moderate,
24 and I agree with that, but that is not talc.

25 BY MR. RISING: 14:08

1 Q. What is it, in your opinion, Dr. Longo?

2 A. Fibrous talc or talc plates on the edge
3 always start off around .045, and the highest I've
4 seen is 0.065. I have never found a reference
5 anywhere that fibrous talc is that. 14:08

6 And looking at the gamma, the 1.573 is a
7 little too -- is, in my opinion, too high for
8 that. I agree with the alpha.

9 The elongation from both the northwest and
10 northeast, you have -- you have -- these are 14:09
11 negative elongations for both of them.

12 And neither talc nor chrysotile has that.
13 This is a misidentification of talc. I'm not
14 aware of much minerals -- now, brucite will have
15 negative elongation, but when you turn it to the 14:09
16 north -- to the northeast/southwest direction, you
17 get positive elongation, and it doesn't have
18 either of this.

19 So this would be a mystery mineral unless
20 they've done something wrong. 14:09

21 I'm making sure. 4A, again, alpha, gamma.
22 They got same refractive -- same birefringence.
23 The gamma is a little too high, in my opinion.
24 But these are pictures.

25 Again we have an elongation for the talc. 14:10

1 You're getting what talc plates are.

2 If this was elongated talc, it should
3 be -- it should be positive in -- in the one
4 direction, but it shouldn't -- it has -- it has
5 both a gamma and an alpha reading. You can't have 14:10
6 it positive in both directions -- I mean, excuse
7 me -- negative in both directions. It doesn't
8 make any sense to me. Maybe Mr. Segrave can --
9 that was 4A.

10 Next one I have here is page 20, 006A. 14:11
11 Alpha is at extinction. Gamma is 1.56 now.
12 Birefringence of 1.019 moderate fibrous talc.

13 Again, page 54 and 55 shows that the
14 elongation is both negative. The -- only the
15 number -- only the one on 55 ought to be negative. 14:11
16 The one on 54 should be positive because we do
17 have two -- we have an alpha that's 1.550. Gamma
18 cannot be 1.550. It's got to be an extinction.
19 So you only kind of get that with talc plates. If
20 you look at the alpha, you got kind of a bluish 14:12
21 color there, from what I can see.

22 The talc plates don't change because
23 that's the Beta direction. But the gamma, that is
24 not 1.550.

25 So it's unclear what that is, at least in 14:12

1 my opinion.

2 9A is the next one. We have alpha at
3 1.550; we have gamma at 1.569; a birefringence of
4 0.019, moderate.

5 We have gamma at 1.550 and alpha at 1.550 14:13
6 with an extinction. So we have a high and low. I
7 agree with the alpha. I don't understand how this
8 could be 1.550 with kind of a yellowish-gold
9 color, which would put us up in the 1.56566.

10 And I think if we go back to some of these 14:13
11 others -- might have just got something wrong
12 here? Well, I have 9A and I have 9A on -- I'm
13 sorry. That's got to be the -- I apologize.
14 That's got to be the RI fluid -- it's actually
15 1.569. It should be more yellow than that. And 14:14
16 the alpha -- strike what I've said in the past
17 because they've got the refractive indices on
18 here. I'm just getting tired.

19 1.550, I agree with that.

20 Now, the elongated talc on page 67, what 14:14
21 they're calling talc, that is a positive
22 elongation. So it's known as a slow length.

23 And the gamma, the other, 168, that is
24 what you would expect for fibrous talc, but it's
25 not fibrous talc because the refractive indices 14:15

1 are -- excuse me -- the refractive indices for
2 determining the birefringence is not nearly what
3 is required. There is no talc at 0.019. That's
4 chrysotile we're looking at. Because in my
5 opinion, the gamma is -- the gamma direction is 14:15
6 not 1.569. That's going to be more yellow versus
7 this more golden color. It's got to be down
8 towards the 1. -- 1.64, 1.65.

9 So actually, in my opinion, 009A, in order
10 for that to be elongated talc, the birefringence 14:16
11 has to be at least 0.045 and higher.

12 Just want to go in order here.

13 11A, alpha 1.549. Let me see what alpha
14 is.

15 Alpha is wrong, 1.549, because if you go 14:16
16 to page 80, which is the alpha, quote, talc
17 compared to page 81, which is the gamma, and you
18 turn that to the right to put it in the
19 perpendicular direction, if I'm looking at this
20 right -- wait a minute. 14:17

21 When you get -- if we're looking at the
22 right structure, we're getting in the
23 perpendicular direction, it's got extinction,
24 which a matching wavelength has to be around 1.550
25 instead of -- since you're using 1 .550. 14:18

1 And if you have 1.550, then you have a
2 birefringence that's going to be 1.55 -- well,
3 1.549, I can't argue with that. I think their
4 gamma is off. Anyway, 0.019 is too low.

5 And I guess looking at page 78, elongated 14:18
6 talc, very hard with the resolution on this,
7 should be bigger, but I won't -- certainly the --
8 page 79 is appropriate. Page 78, there is blue in
9 there. So again, I would call that chrysotile.
10 Birefringence is way off to be talc. 14:19

11 On page 14A, we got alpha at 1.551, gamma
12 at 1.572.

13 1.572 has to be way more yellow than that.
14 The alpha talc on page 89, I agreed with, 1.549.

15 The -- on 88, that would positive 14:19
16 elongation.

17 And 87, that's appropriate.

18 So again, that's not talc. That's
19 chrysotile, in my opinion.

20 Last but not least, 15A, starting on 14:20
21 page 29. We have our alpha at 1.549; again, gamma
22 at 1.574; birefringence of 0.25.

23 The photograph in gamma, at least what I'm
24 looking here, is much lower than 1.574. That's in
25 the 1.56-something range. I agree with the alpha. 14:20

1 On page 92, we have blue on the corners,
2 and then all yellow when we go to the other side
3 of elongation of a direction. Close enough, I
4 guess.

5 I don't know how good their PLM microscope 14:21
6 is. That's why, you know, when we compare it to
7 ours, it's much better resolution.

8 But that's closer than chrysotile. And
9 again, the birefringence at 0.025 is -- you'll
10 never find any fibrous talc like that, talc plates 14:21
11 on edge. Okay.

12 Q. What's the takeaway -- you went on for a
13 while there. What's the takeaway from all that if
14 you had to sum that up?

15 A. The takeaway all this is they are 14:22
16 completely misidentifying what they're calling
17 elongated talc, not even close to what you should
18 have both in the refractive indices as well as the
19 birefringence.

20 Q. And what is it? You said sometimes you 14:22
21 thought it was chrysotile and sometimes you didn't
22 know?

23 A. Well, some of it doesn't make any sense to
24 me. I have not come across anything in these
25 minerals that has -- for biaxial anisotropic 14:22

1 mineral that has a double refraction that would
2 have both an elongation both -- two negative in
3 both directions. One should be positive or
4 negative, and the other one should be -- if it's
5 negative, it should be positive, and if it's 14:22
6 positive, it should be negative.

7 Here we have two negatives. It doesn't
8 make any sense to me. So I can't tell you what
9 that is.

10 Now, the ones where we have positive 14:23
11 elongation and negative elongation for that as
12 well as put the proper -- number one, even with
13 these slightly out gammas, it is nowhere near what
14 fibrous talc would be. We're looking at a
15 threefold -- almost a threefold difference in the 14:23
16 birefringence versus what's being reported here.

17 Q. Anything else, Dr. Longo?

18 A. Well, you know, I don't think we have time
19 anymore, you know, where to go. Mr. Segrave has
20 32 things -- 33 things that he doesn't like about 14:23
21 my report.

22 Q. Do you agree --

23 A. He used to work for me.

24 Q. Do you agree with anything in the 33?

25 A. Let's see. Number 34, Dr. Longo is the 14:24

1 best scientist I've ever worked for. Not. No,
2 there is no 34.

3 Q. Dr. Longo, is there any opinions that you
4 intend to offer at trial about Safeway, long --
5 Longs or Lucky that you haven't shared with me 14:24
6 today?

7 A. I don't know. I don't know what
8 hypotheticals I'm going to be given. And even
9 though you've done a very thorough job, I have no
10 idea what you might ask on cross. 14:24

11 But I feel like I've given you my basic
12 opinions, so it should be -- you know, I can't
13 think of anything else, as I sit here right now.

14 Q. Do you plan to do any additional work
15 before you testify either next week or the 14:24
16 following week?

17 A. You mean starting tomorrow morning real
18 early, I start reanalyzing these in 1.560? No.

19 Q. Plenty of time. There's 24 hours in a
20 day, Dr. Longo. 14:25

21 A. No, sir. I don't really believe in
22 bushwhacking attorneys, going and doing something
23 like that. I don't really believe in it. I know
24 you guys love to do that to me, but, you know,
25 that's your job. 14:25

1 Q. Well, hopefully, it wasn't too painful.

2 A. No, sir. And I appreciate your
3 professionalism. It was fine.

4 MR. RISING: All right. I thank you for
5 your time. I look forward to meeting you next 14:25
6 week.

7 THE WITNESS: All right. Me, too.

8 MR. RISING: All right. That's all the
9 questions I have for today.

10 THE WITNESS: I think we must have hit our 14:25
11 five hours by now.

12 MR. RISING: I think we did.

13 THE WITNESS: 5:25.

14 MR. HINES: Thank you, Counsel.

15 THE WITNESS: Thank you, guys. And I 14:25
16 guess I'll see some of you next week.

17 MR. RISING: Yeah. See you. Bye.

18 THE WITNESS: All right. I'm leaving.

19 THE VIDEOGRAPHER: We are off the record
20 at 5:26 p.m. This concludes today's testimony 14:26
21 given by William Longo, Ph.D., Volume III. The
22 total number of media used was four and will be
23 retained by Veritext Legal Solutions. Thank you.

24 (Whereupon, the deposition was
25 concluded at 5:26 p.m.)

SIGNATURE OF DEPONENT

I, the undersigned, WILLIAM LONGO, Ph.D., do hereby certify that I have read the foregoing deposition and find it to be a true and accurate transcription of my testimony, with the following corrections, if any:

PAGE	LINE	CHANGE
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[illegible]

WILLIAM LONGO, Ph.D., Date

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STATE OF CALIFORNIA

SS.

REPORTER'S CERTIFICATE

I, EARLY LANGLEY, a Certified Shorthand Reporter, State of California, do hereby certify:

That WILLIAM LONGO, Ph.D., in the foregoing deposition named, was present via Zoom and by me sworn as a witness in the above-entitled action at the time and place therein specified;

That said deposition was taken before me via Zoom at said time and place, and was taken down in shorthand by me, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed into typewriting, and that the foregoing transcript constitutes a full, true and correct report of said deposition and of the proceedings that took place;

IN WITNESS WHEREOF, I have hereunder subscribed my hand on November 6, 2023.



EARLY LANGLEY, CSR NO. 3537
State of California

1 Michael Reid, Esq.

2 Mreid@kazanlaw.com

3 November 6, 2023

4 RE: MARLIN LEWIS EAGLES vs. ARVINMERITOR, INC.

5 November 3, 2023, William Longo, Ph.D. (JOB NO. 6298688)

6 The above-referenced transcript has been

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19 the deposition or provided by the Code of Civil Procedure.

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21 Counsel - Original transcript to be released for signature
22 as determined at the deposition.

23 ___ Signature Waived - Reading & Signature was waived at the
24 time of the deposition.

25

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8 the deposition or provided by the Federal Rules.
9 ___ Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

1 MARLIN LEWIS EAGLES vs. ARVINMERITOR, INC.
2 William Longo, Ph.D. (JOB NO. 6298688)
3 E R R A T A S H E E T
4 PAGE_____ LINE_____ CHANGE_____
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24 WITNESS Date
25

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California Code of Civil Procedure

Article 5. Transcript or Recording

Section 2025.520

(a) If the deposition testimony is stenographically recorded, the deposition officer shall send written notice to the deponent and to all parties attending the deposition when the Original transcript of the testimony for each session of the deposition is available for reading, correcting, and signing, unless the deponent and the attending parties agree on the record that the reading, correcting, and signing of the transcript of the testimony will be waived or that the reading, correcting, and signing of a transcript of the testimony will take place after the entire deposition has been concluded or at some other specific time.

(b) For 30 days following each notice under subdivision (a), unless the attending parties and the deponent agree on the record or otherwise in writing to a longer or shorter time period, the deponent may change the form or the substance of the answer to a question, and may either approve the transcript of the deposition by signing it, or

refuse to approve the transcript by not signing it.

(c) Alternatively, within this same period, the deponent may change the form or the substance of the answer to any question and may approve or refuse to approve the transcript by means of a letter to the deposition officer signed by the deponent which is mailed by certified or registered mail with return receipt requested. A copy of that letter shall be sent by first-class mail to all parties attending the deposition.

(d) For good cause shown, the court may shorten the 30-day period for making changes, approving, or refusing to approve the transcript.

(e) The deposition officer shall indicate on the original of the transcript, if the deponent has not already done so at the office of the deposition officer, any action taken by the deponent and indicate on the original of the transcript, the deponent's approval of, or failure or refusal to approve, the transcript. The deposition officer shall also notify in writing the parties attending the deposition of any changes which the deponent timely made in person.

(f) If the deponent fails or refuses to approve the transcript within the allotted period, the

deposition shall be given the same effect as though it had been approved, subject to any changes timely made by the deponent.

(g) Notwithstanding subdivision (f), on a seasonable motion to suppress the deposition, accompanied by a meet and confer declaration under Section 2016.040, the court may determine that the reasons given for the failure or refusal to approve the transcript require rejection of the deposition in whole or in part.

(h) The court shall impose a monetary sanction under Chapter 7 (commencing with Section 2023.010) against any party, person, or attorney who unsuccessfully makes or opposes a motion to suppress a deposition under this section, unless the court finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust.

DISCLAIMER: THE FOREGOING CIVIL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE STATE RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the deposition officer. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the deposition officer and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted

fashion to authenticated parties who are permitted to access the material. Our data is hosted in SSAE 16 certified facilities.

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF ALAMEDA

---000---

MARLIN LEWIS EAGLES and

GEORGIA EAGLES,

Plaintiffs,

No. 22CV018294

vs.

ARVINMERITOR, INC., et

al.,

Defendants.

_____/

VIDEOTAPED ZOOM DEPOSITION OF WILLIAM LONGO, Ph.D.

VOLUME 3, Pages 282 - 507

November 3, 2023

REPORTED BY:

EARLY K. LANGLEY RMR, RSA, B.A.

CSR NO. 3537

JOB NO: 6298688

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1	I N D E X	1	DEPOSITION OF WILLIAM LONGO, Ph.D.
2	PAGE	2	
3	WILLIAM LONGO, Ph.D. 289	3	BE IT REMEMBERED, that pursuant to Notice, and
4		4	on November 3, 2023, commencing at the hour of
5	EXAMINATION BY MR. DUBIN 289	5	8:10 a.m. Pacific Time, before me, EARLY LANGLEY, a
6	EXAMINATION BY MR. HINES 322	6	Certified Shorthand Reporter, State of California, via
7	EXAMINATION BY MR. RISING 365	7	Zoom appeared WILLIAM LONGO, Ph.D., produced as a
8		8	witness in said action, and being by me previously duly
9		9	sworn, was thereupon examined as a witness in said
10		10	cause.
11		11	---oOo---
12		12	APPEARANCES:
13		13	
14		14	For the Plaintiffs:
15		15	
16		16	MICHAEL REID
17		17	Kazan, McClain, Satterley & Greenwood
18		18	55 Harrison Street
19		19	Suite 400
20		20	Oakland, California 94607
21		21	(510) 302-1000
22		22	Mreid@kazanlaw.com
23		23	
24		24	
25		25	
Page 283		Page 285	
1	E X H I B I T S	1	For the Defendant Perrigo Company of Tennessee f/k/a
2		2	Cumberland-Swan and CMC, Inc.:
3	EXHIBIT NO. PAGE	3	
4	Exhibit 35 Notice of Deposition, Day 3 289	4	JEFF HINES
5	Exhibit 36 Photocopy of Slide 36, red-edged, 290	5	Goodell, DeVries, Leech and Dann LLP
6	Dr. Longo	6	One South Street
7	Exhibit 37 Lanier website 292	7	Baltimore, Maryland 21202
8	Exhibit 38 Blog post 295	8	Jjh@gdldlaw.com
9	Exhibit 39 MDL report, 11/14/2018, Dr. Longo 298	9	
10	Exhibit 40 Slides of Valadez particles 306	10	For the Defendants Longs Drug Stores California, LLC.,
11	Exhibit 41 11/2023 Notice From the Expert 317	11	on behalf of Longs Drug Stores California, Inc.; Lucky
12	Committee	12	Stores (Save Mart) LLC f/k/a Lucky Stores, Inc.; and
13	Exhibit 42 TEM analysis performed by Jayme 346	13	Safeway Inc:
14	Callan	14	
15	Exhibit 43 MAS Project M71719, Talcum Powder 395	15	KEVIN RISING
16	Analysis, Marlin Eagles	16	Barnes & Thornburg LLP
17	Exhibit 44 Test result on product 434	17	2029 Century Park East
18		18	Suite 300
19		19	Los Angeles, California 90067
20		20	(310) 284-3880
21		21	Krising@btlaw.com
22		22	
23		23	
24		24	
25		25	
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1 For the Defendants, Johnson & Johnson; LTL Management	1 MS. BUENO: Good morning. Kim Bueno on
2	2 behalf of Johnson & Johnson defendants.
3 MORTON D. DUBIN	3 MR. COWAN: Chris Cowan from Butler Snow
4 SHAILA R. DIWAN	4 on behalf of the same.
5 King & Spalding LLP	5 MR. RISING: Kevin Rising on behalf of 08:12
6 1185 Avenue of the Americas	6 Longs, Lucky, and Safeway.
7 34th Floor	7 MR. HINES: Jeff Hines on behalf of
8 New York, NY 10036	8 Perrigo Tennessee.
9 (212) 790 5346	9 MS. DIWAN: Shaila Diwan on behalf of
10 Mdubin@kslaw.com	10 Johnson & Johnson. 08:12
11 Sdiwan@kslaw.com	11 THE VIDEOGRAPHER: Thank you.
12	12 We are on the record. You may proceed.
13 KIM BUENO	13 MR. DUBIN: Great.
14 CHRIS COWAN	14 WILLIAM LONGO, Ph.D.
15 Butler Snow LLP	15 previously sworn as a witness,
16 1400 Lavaca Street, Suite 1000	16 testified as follows:
17 Austin, Texas 78701	17 EXAMINATION BY MR. DUBIN:
18 (737) 802-1820	18 Q. Hi, Dr. Longo. Just because I know that
19 kim.bueno@butlersnow.com	19 the retailers need some time with you today, I'm
20 Chris.cowan@butlersnow.com	20 going to try to be relatively brief, mostly just 08:12
21	21 cover some cleanups on specific and general
22 ALSO PRESENT:	22 questioning.
23	23 Let's start just by marking the notice for
24 Geoff Minger, Videographer	24 day 3 as Exhibit 35.
25	25 (Whereupon, Defendants' Exhibit 35 was 08:12
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1 --oOo--	1 marked for identification.)
2 PROCEEDINGS	2 BY MR. DUBIN:
3 --oOo--	3 Q. And did you bring anything new with you
4 THE VIDEOGRAPHER: We are going on the	4 today or just the same things that you had at the
5 record at 11:10 a.m. on November 3, 2023. This is 08:10	5 prior depositions? 08:12
6 Volume III of the remote video-recorded deposition	6 A. Well, I brought the Longs Baby Powder
7 of William Longo, Ph.D., in the matter of Marlin	7 container analysis. I brought the Valadez
8 Lewis Eagles and Georgia Eagles v. Johnson &	8 analysis. I went through Alan Segrave's April 17,
9 Johnson, et al., filed in the Superior Court of	9 2023 report.
10 California, County of Alameda, Case Number 08:11	10 And I downloaded one thing -- well, I got 08:13
11 22CV018294.	11 this edge effects on talc particles photograph, I
12 This deposition is being held using remote	12 guess you marked as an exhibit.
13 technology, and all parties are appearing	13 Q. Correct.
14 remotely.	14 A. And that's it.
15 The videographer is Geoff Minger, a notary 08:11	15 Oh, also brought along Mr. Eagles' two 08:13
16 public from Veritext Legal Solutions. The court	16 containers, the body powder medicated that had
17 reporter is Early Langley, also from Veritext	17 talc in it and then the Equate, which was a
18 legal solutions.	18 cornstarch, brought those analysis.
19 Would counsel please identify themselves	19 And that's all. That's all the new stuff.
20 for the record and state their appearances. 08:11	20 MR. DUBIN: Okay. So even though it's -- 08:14
21 MR. REID: Good morning. This is Michael	21 I assume it's just the same as what I marked
22 Reid on behalf of the plaintiffs.	22 before, we'll just make your copy of the red-edged
23 MR. DUBIN: Good morning. This is Morton	23 slide 36.
24 Dubin on behalf of the Johnson & Johnson-related	24 (Whereupon, Defendants' Exhibit 36 was
25 defendants. 08:11	25 marked for identification.) 08:14
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<p>1 BY MR. DUBIN:</p> <p>2 Q. Before we get to that, just briefly on</p> <p>3 Mr. Eagles' home, is it your understanding that it</p> <p>4 was constructed in around 1927?</p> <p>5 A. Yeah, somewhere around there. 1926, 1927. 08:14</p> <p>6 Q. Okay. And I think that you said</p> <p>7 previously that you were not aware of asbestos</p> <p>8 products being used in home construction around</p> <p>9 that time; is that correct?</p> <p>10 A. That's correct. 08:14</p> <p>11 Q. What, if any, investigation did you do to</p> <p>12 confirm that?</p> <p>13 MR. REID: Overbroad.</p> <p>14 THE WITNESS: I guess I relied on my</p> <p>15 35 years of experience doing this type of work, 08:14</p> <p>16 especially a lot of product ID, and when</p> <p>17 manufacturers started making stuff and selling</p> <p>18 them for residential homes.</p> <p>19 So did you find something that I'm not</p> <p>20 aware of? 08:15</p> <p>21 BY MR. DUBIN:</p> <p>22 Q. Well. I'll ask you -- I'll ask you -- I</p> <p>23 mean, I'll ask you a couple of questions about</p> <p>24 that.</p> <p>25 Let's just mark -- we'll make 37 -- 08:15</p> <p style="text-align: right;">Page 291</p>	<p>1 Q. Dr. Longo, you haven't seen this before;</p> <p>2 right?</p> <p>3 A. No. I typically don't look at plaintiffs</p> <p>4 or defendants website unless there's something</p> <p>5 unusual there. I don't know where he would have 08:16</p> <p>6 gotten that information. I've not seen it.</p> <p>7 Q. We'll look at a couple different things.</p> <p>8 We'll scroll down here. You see there's a</p> <p>9 reference to asbestos being in the United States</p> <p>10 Gypsum plaster from 1920 to 1975? 08:16</p> <p>11 A. I see that he states that, yes.</p> <p>12 Q. Again, obviously, is it fair to say you</p> <p>13 didn't even Google when -- whether there was</p> <p>14 asbestos in home construction in the 1920s?</p> <p>15 MR. REID: Vague as to time and 08:17</p> <p>16 argumentative, ignores fact, and misstates</p> <p>17 previous testimony.</p> <p>18 BY MR. DUBIN:</p> <p>19 Q. Just asking, did you Google when there was</p> <p>20 asbestos in construction products in the United 08:17</p> <p>21 States?</p> <p>22 MR. REID: Same objections.</p> <p>23 THE WITNESS: No.</p> <p>24 MR. REID: Also lacks foundation in the</p> <p>25 sense that that's pointless. 08:17</p> <p style="text-align: right;">Page 293</p>
<p>1 Of course, you've done a good deal of work</p> <p>2 for the Lanier firm; isn't that right?</p> <p>3 A. Yes, I have.</p> <p>4 Excuse me. I don't know why I was</p> <p>5 mumbling like that. 08:15</p> <p>6 Yes, I have.</p> <p>7 Q. All right.</p> <p>8 MR. DUBIN: We'll just make as the next in</p> <p>9 order a website from the Lanier firm.</p> <p>10 (Whereupon, Defendants' Exhibit 37 was 08:15</p> <p>11 marked for identification.)</p> <p>12 BY MR. DUBIN:</p> <p>13 Q. And so I assume you've never seen this</p> <p>14 about asbestos in plaster from the Lanier website?</p> <p>15 MR. REID: Just going to object to the 08:15</p> <p>16 extent that the exhibit lacks foundation. It's</p> <p>17 unauthenticated hearsay and has no foundation</p> <p>18 regarding its source material and information.</p> <p>19 MR. DUBIN: Okay. Well, you can just say,</p> <p>20 "Object to form." 08:16</p> <p>21 MR. REID: You actually can't in</p> <p>22 California. That is not proper. It does not</p> <p>23 preserve your right.</p> <p>24 MR. DUBIN: All right. Well, it's fine.</p> <p>25 BY MR. DUBIN: 08:16</p> <p style="text-align: right;">Page 292</p>	<p>1 THE WITNESS: "Construction products" mean</p> <p>2 a lot of different things. I mean, certainly,</p> <p>3 there was asbestos products -- you know,</p> <p>4 Johns-Manville came up with, essentially, cement</p> <p>5 board with asbestos in it and -- and their 08:17</p> <p>6 first -- one of their first clients was railroads,</p> <p>7 who put it in the floor from the sparks coming up</p> <p>8 from the brake shoes. So there was asbestos</p> <p>9 product.</p> <p>10 But I was never aware, at least in all my 08:18</p> <p>11 research over the years, because we'd get involved</p> <p>12 in things, like, oh, yeah, we took plaster off an</p> <p>13 old house. We never found asbestos until in later</p> <p>14 years, and they mainly put it in plaster so they</p> <p>15 could shoot it versus troweling it on, especially 08:18</p> <p>16 on outside of the houses.</p> <p>17 So I don't have any reason -- you know, I</p> <p>18 don't know the information. Certainly, if there</p> <p>19 is reliable information that says that there is</p> <p>20 asbestos in plaster, then I will have to re- -- 08:18</p> <p>21 change my opinion.</p> <p>22 BY MR. DUBIN:</p> <p>23 Q. Okay. We'll just mark a few other things.</p> <p>24 So the next, again, is something from the Web. If</p> <p>25 you Google -- and you're welcome to do it yourself 08:18</p> <p style="text-align: right;">Page 294</p>

<p>1 at some point -- but asbestos in homes in the 2 '20s, this is a blog post. 3 (Whereupon, Defendants' Exhibit 38 was 4 marked for identification.) 5 BY MR. DUBIN: 08:18 6 Q. Do you see that? 7 MR. REID: Just real quick before the 8 answer, I'm just going to object again to another 9 website posting that lacks foundation, lacks 10 authentication, is unauthenticated hearsay, and 08:19 11 further lacks foundation in its source material. 12 MR. DUBIN: Let me just put on the record 13 that I think it goes to the sufficiency or 14 diligence of the investigation that Dr. Longo has 15 performed -- 08:19 16 (Off the record discussion to discuss 17 audio interference.) 18 MR. DUBIN: I think it may be that -- I 19 don't know if it's plaintiffs' counsel, that you 20 may need to mute when you're not speaking so that 08:19 21 you don't get a double echo of my speaking through 22 both. 23 THE VIDEOGRAPHER: Or if they have a 24 headset available or earbuds that they can plug 25 into their device. 08:20</p> <p style="text-align: right;">Page 295</p>	<p>1 that time is not going to count. So I'm just 2 telling you that that's my view of this, because 3 you're going on and on. 4 You objected. I made my record briefly. 5 Let's move on. 08:22 6 MR. REID: And because you made your 7 record briefly, Counsel, I was able to make my 8 record briefly. So if you want to continue to put 9 things on the record, you can continue to do so, 10 but it does count towards your time because you're 08:22 11 making a record and now I'm entitled to do so. 12 So please continue. 13 MR. DUBIN: Oh, my goodness. 14 BY MR. DUBIN: 15 Q. So again, one of the things you've looked 08:22 16 at in the past, for example, has been 17 interrogatories of various companies to see what 18 they may have -- what their product may have 19 contained and when they manufactured them; right? 20 A. I have. 08:22 21 Q. Did you do any of that to determine what, 22 if any, asbestos-containing home construction 23 materials, any of the major manufacturers such as 24 United States Gypsum produced in the 1920s? 25 MR. REID: Vague as to time. 08:22</p> <p style="text-align: right;">Page 297</p>
<p>1 MR. DUBIN: Yeah, let's just try muting 2 and unmuting, because that should work. I'll try 3 to pause for you to be able to object. 4 (Audio interference, reporter 5 clarification.) 08:21 6 MR. DUBIN: -- sufficiency of his -- 7 diligence of his investigation and, therefore, is 8 fully admissible. 9 MR. REID: In response to that, it does 10 not satisfy the foundation or hearsay issues 08:21 11 associated with the website. 12 In addition, you are more than welcome to 13 ask him about the sufficiency of his actual 14 research, which I believe is something around the 15 years -- 30 years of testing products containing 08:21 16 asbestos, ranging from the beginning of the 1900s 17 through the 2020s, including defendants' products 18 and various construction materials. 19 You're more than welcome to ask him about 20 all that and that research rather than your 08:21 21 two-bit Google search trying to find actual 22 authentic source material, which is 23 not admissible -- 24 MR. DUBIN: We're on a time limit today, 25 and if we're going to get very long objections, 08:21</p> <p style="text-align: right;">Page 296</p>	<p>1 THE WITNESS: I did not. 2 BY MR. DUBIN: 3 Q. Okay. And -- all right. And I want to 4 switch briefly then to the two containers that you 5 indicated you have identified richterite in that 08:23 6 are associated with Johnson & Johnson. One of 7 those -- 8 First, let me ask you, at some point you 9 said this. This was your MDL report dated 10 11/14/2018. 08:23 11 MR. DUBIN: So this will be 39. 12 (Whereupon, Defendants' Exhibit 39 was 13 marked for identification.) 14 BY MR. DUBIN: 15 Q. And you said, you'll only be relying on 08:23 16 that report and any future supplemental reports 17 regarding the analysis of historical JBP/STS 18 samples and containers. 19 Is that still true? 20 A. Is that the MDL report? 08:24 21 Q. That's the MDL report. 22 So in the MDL report, you wrote that after 23 you wrote the MDL report, you would only be 24 relying on that report and any future supplemental 25 reports involving the analysis of historical 08:24</p> <p style="text-align: right;">Page 298</p>

<p>1 JBP/STS samples/containers.</p> <p>2 Is that still true?</p> <p>3 MR. REID: Vague and ambiguous.</p> <p>4 THE WITNESS: Certainly, it was true for</p> <p>5 that report in 2018. You know, five years later, 08:24</p> <p>6 the question comes up, was there ever any</p> <p>7 richterite found in Chinese samples,</p> <p>8 Chinese-sourced samples. Yes, there was. It was</p> <p>9 the -- it was not J&J product. It was a company</p> <p>10 that bought the Shower to Shower from J&J, and 08:24</p> <p>11 they continued to use Chinese.</p> <p>12 So I don't know if I have to -- we'll be</p> <p>13 using it in any updated -- the MDL report, but</p> <p>14 certainly, I'm going to be relying on it here.</p> <p>15 BY MR. DUBIN: 08:25</p> <p>16 Q. Okay. So, again, the first -- the first</p> <p>17 bottle that you claimed to find richterite in,</p> <p>18 that was an eBay bottle, correct, bottle purchased</p> <p>19 off eBay and provided to you by plaintiffs'</p> <p>20 counsel? 08:25</p> <p>21 A. That is correct.</p> <p>22 Q. Okay. And that was from a report that</p> <p>23 predated this MDL report; correct?</p> <p>24 A. I believe that is correct.</p> <p>25 Q. Okay. And so here in the MDL report, 08:25</p> <p style="text-align: right;">Page 299</p>	<p>1 A. Correct.</p> <p>2 Q. And the second bottle was purchased by the</p> <p>3 Simon and Greenstone plaintiff law firm and given</p> <p>4 to you; correct?</p> <p>5 A. Correct. 08:27</p> <p>6 Q. Okay. And so just to -- you've never</p> <p>7 found any richterite in any Johnson & Johnson</p> <p>8 product that came from Johnson & Johnson's</p> <p>9 historical collection of talcum powder products;</p> <p>10 correct? 08:27</p> <p>11 A. Of the ones we've analyzed, that's</p> <p>12 correct.</p> <p>13 Q. Okay. And approximately how many have</p> <p>14 you -- bottles have you analyzed from the</p> <p>15 Johnson & Johnson historical collection? 08:27</p> <p>16 A. Maybe 70, all total.</p> <p>17 Q. To make it clear, the only bottles in</p> <p>18 which you claim to have found richterite of</p> <p>19 Johnson & Johnson were provided to you by</p> <p>20 plaintiffs' counsel; correct? 08:27</p> <p>21 A. That is correct.</p> <p>22 Q. And -- all right. Just quick cleanups on</p> <p>23 the fiber burden stubs.</p> <p>24 Would you consider what you did a</p> <p>25 confirmation analysis given that you didn't go 08:28</p> <p style="text-align: right;">Page 301</p>
<p>1 you're saying you are not going to rely on those</p> <p>2 prior reports, the eBay reports.</p> <p>3 Are you now relying on it anyway?</p> <p>4 MR. REID: Vague and ambiguous. That MDL</p> <p>5 report was issued for the MDL, not for this case. 08:25</p> <p>6 So, Counsel, you can ask him what he's</p> <p>7 relying upon for purposes of this case, but this</p> <p>8 is not a depo in the MDL.</p> <p>9 THE WITNESS: As I've stated, this is for</p> <p>10 the MDL, and the MDL was about the historical 08:26</p> <p>11 samples. This is not a MDL case. And this</p> <p>12 answers a question.</p> <p>13 I couldn't ignore the fact that we had</p> <p>14 analyzed samples from -- sourced from Chinese that</p> <p>15 had either richterite or winchite in it. I'm 08:26</p> <p>16 certainly not going to ignore the any eBay samples</p> <p>17 or samples contributed by the actual mesothelioma</p> <p>18 victim.</p> <p>19 So as I look at it, this report here has</p> <p>20 nothing to do with what we're doing today. 08:26</p> <p>21 BY MR. DUBIN:</p> <p>22 Q. So just to be clear, the first bottle was</p> <p>23 an eBay bottle, and it was not -- it was not a --</p> <p>24 and it was a bottle that was purchased off eBay by</p> <p>25 the Kazan firm and given to you; correct? 08:26</p> <p style="text-align: right;">Page 300</p>	<p>1 through and try to confirm the specific particles</p> <p>2 that Dr. Abraham identified?</p> <p>3 A. It's very hard to find very specific</p> <p>4 particles and do it within a reasonable time. But</p> <p>5 we found all similar types of particles that 08:28</p> <p>6 Abraham found -- Abraham found in the lung tissue.</p> <p>7 So, therefore, it's confirmation, at least in my</p> <p>8 opinion, that Mr. Eagles' exposure had to do with</p> <p>9 his talcum powder exposure.</p> <p>10 Q. Okay. We'll talk about that part of it in 08:29</p> <p>11 a second.</p> <p>12 In other words, were you going through and</p> <p>13 trying to confirm the specific particles that</p> <p>14 Dr. Abraham found?</p> <p>15 A. We were -- we were trying to find either 08:29</p> <p>16 the very same particles, or minerals, the same</p> <p>17 types of minerals --</p> <p>18 I'm sorry, let me turn this off.</p> <p>19 -- the same type of minerals that</p> <p>20 Dr. Abraham was finding, such as fibrous talc or 08:29</p> <p>21 platy talc or aluminum silicates or tremolite or</p> <p>22 richterite, what have you.</p> <p>23 Q. What was your personal involvement with</p> <p>24 the confirmation analysis? Were you the one</p> <p>25 operating the SEM or taking the images? 08:29</p> <p style="text-align: right;">Page 302</p>

<p>1 A. No, I was not the one operating the SEM. 2 Q. And what personal involvement did you have 3 with the confirmation analysis? 4 A. With the MVA, with Dr. Vander Wood, I was 5 sitting right there. 08:30 6 With our own in-house SEM work, until the 7 detectors quit on us, I was there supervising 8 and -- not sitting through the entire session, but 9 what to look for, what types of particles we 10 wanted to see, which is basically anything you 08:30 11 find there, talc plates, fibrous talc, any type of 12 asbestos, any type of aluminum silicates, anything 13 unusual, you know, record it. 14 So it's under my direction, but no, I 15 wasn't sitting at the SEM. 08:31 16 Q. Did you identify any chrysotile in 17 Mr. Eagles' tissue? 18 A. Not that I could say with any reasonable 19 degree of scientific certainty. 20 Q. Do you have any view on how that could be 08:31 21 since you've claimed that there's routinely 22 chrysotile in Johnson & Johnson products? 23 A. There is chrysotile in Johnson & Johnson 24 products, but we're looking at lung tissue, and in 25 lung tissue, one, you got a biopersistence issue 08:31 Page 303</p>	<p>1 of the J&J products. 2 Q. I guess my question is more basic. In 3 other words, what is the source of information 4 that you have about the extent to which they used 5 Johnson & Johnson talc, for example, and whether 08:33 6 they had exposures from other sources? Is that 7 the deposition testimony of those individuals? 8 Did you review that at some point? Is that what 9 you're relying on? 10 A. I don't remember back that far exactly, 08:33 11 you know, what I reviewed at the time. I 12 didn't -- I didn't -- at the time we did the 13 reports and issued them, et cetera, I don't 14 recall. I don't want to speculate right at the 15 moment. 08:34 16 Q. So the reports or your testimony in those 17 cases will indicate what materials you relied on 18 for facts about their exposure or alternative 19 exposures; is that fair? 20 A. I don't know. It's not fair until I have 08:34 21 a chance to review it because I don't recall what 22 I relied on. 23 Q. Did you identify talc in Mr. Eagles' 24 tissue? 25 A. Well, let me get it. 08:34 Page 305</p>
<p>1 in the lungs; two, you're taking a very small 2 sample, especially in the lung tissue, out of an 3 area -- you have a surface area -- if you were to 4 open up the lungs and lay them out, you have the 5 surface area of a tennis court. So it's not 08:32 6 unusual to find or not find things in there that 7 one might expect. 8 We've done other cases where we do find 9 chrysotile. So it just depends on both exposure, 10 what the biopersistence issue is with that 08:32 11 particular mineral, and what area of the lungs are 12 removed. 13 Q. What -- I know you've also produced 14 reports having to do with Leavitt and Doyle. 15 What is your source of information for the 08:32 16 extent to which those individuals used talc? 17 A. Both those -- both those lung tissues -- I 18 would have to pull the report. But both of them 19 were, you know, Johnson & Johnson users. 20 And something like Leavitt, we were able 08:32 21 to find specifically the same things that Abraham 22 at that time found. And they're just used as 23 examples of, here's other talcum powder, J&J 24 talcum powder exposures, and here's what we're 25 finding in the lungs, essentially the ingredients 08:33 Page 304</p>	<p>1 Let's see. This is Leavitt's. 2 Yes, we did. I'm having trouble finding 3 the report. 4 I see this stuff from MVA, and we found 5 talc there. 08:35 6 Somehow... 7 I'm going to say, yes, we did, and so did 8 Abrams -- Abraham. Excuse me. Jeez. 9 Q. Why don't we do this, because I think 10 other people are going to question after me. 08:36 11 Maybe you can look for it on a break, and they can 12 follow up on that topic if you can't find it right 13 now. 14 A. Okay. I know it's here. 15 Q. All right. And then just a few quick 08:36 16 general questions. 17 MR. DUBIN: First, I'll mark this as next 18 in order. 19 What are we -- are we on 40, Early? 20 THE REPORTER: Yes. 08:36 21 MR. DUBIN: Hold on. I'm lost. 22 (Whereupon, Defendants' Exhibit 40 was 23 marked for identification.) 24 BY MR. DUBIN: 25 Q. It will be the set of slides regarding the 08:36 Page 306</p>

<p>1 Valadez particles. 2 Did you -- we spoke about this before. 3 Did you look through these particles to see 4 whether the circled ranges are what you reported 5 as the color for these particles in parallel? 08:37 6 A. I just got to find it. 7 Q. No problem. 8 A. Yes, I did look at them. 9 Q. Can you just let me know if there are any 10 corrections. 08:37 11 A. Okay. I have it. Wait a minute. You 12 just changed it on me, didn't you? 13 Q. Sorry. I was going to start from the 14 beginning of it. I didn't realize you were going 15 to the specific page number. 08:37 16 A. Well, I don't have page numbers on my 17 report. 18 Q. Okay. 19 A. So let me get to it. 20 Q. I'm sorry. 08:37 21 A. That is Number 1CSM. That should be the 22 first one up. 23 Q. And hopefully they're in order. 24 A. No, they're not in order here for some 25 stupid reason. 08:38</p> <p style="text-align: right;">Page 307</p>	<p>1 approximately what you're identifying as particle 2 in parallel as the color? 3 A. Yes. It's what -- you don't see it too 4 well on that photograph, but I'm looking at this 5 one, which I can see the outer -- you know, the 08:40 6 outer edge of the bundle does have that kind of 7 purplish color. 8 Q. And then next particle, M71614-001CSM-003, 9 are the circled numbers approximately what you're 10 calling this particle for purposes of your 08:40 11 analysis? 12 A. 003. 13 168, so we're getting -- starting to get 14 up into the reddish range, pinkish-red. Yeah, 15 that one is blown up some, so I can see it on the 08:41 16 outer side, on the outer edge -- on the edge of 17 the bundle. So yes, I'm good with that. 18 Q. Okay. Last one, I think, 19 M71614-001CSM-004. Is the circled range what -- 20 approximately what you're calling this for 08:41 21 purposes of your analysis? 22 A. Let's see. We've got purplish to red to 23 pink. Yes, that's good. 24 Q. Okay. Great. Let me just ask you, since 25 you brought it and we marked it as 36, what do you 08:42</p> <p style="text-align: right;">Page 309</p>
<p>1 Q. That's life. 2 A. I'm talking to myself. 3 Okay. I have it. 4 Q. Okay. So the color in parallel for this 5 particle, M71614-001CSM-001, is that the 08:38 6 approximate color that you identified it as in 7 parallel where it's circled -- 8 A. If you go around the edge of the bundle, 9 it's a purplish color. 10 Q. Okay. And then this particle, the next 08:39 11 one, does that appear accurate? This is now 12 M71614-001CSM-002? 13 A. Again, let me get to it. 14 Q. Sure. 15 A. My book is out of order. Somebody is 08:39 16 messing with me. 17 Q. I wish I could claim credit for that, 18 but... 19 A. I understand. 20 1.65, right. 1.68. 08:39 21 I just looked at this, I thought, last 22 night. 23 Okay. 1.002. Here's 002. 24 Okay, I have it. 25 Q. Again, are the circled colors 08:39</p> <p style="text-align: right;">Page 308</p>	<p>1 have to say about the red edge on talc plates? 2 A. Well, first, these photographs have been 3 increased in size or blown up quite substantially, 4 so that will cause the fuzziness. You know, 5 you're losing resolution on the pixels. 08:42 6 And two, if you go to those individual 7 samples -- now, I wasn't able to find a lot of 8 them. If you go to the individual samples and you 9 can see the reddish line around the talc plates, 10 you'll also see it in the gamma direction of the 08:42 11 actual chrysotile structure -- pardon me -- the 12 talc structure. 13 So it's -- and then if you go to 14 perpendicular, it's all gone. So it's not an 15 artifact that's being generated here. 08:43 16 And also, when I went through Segrave's 17 report, his April 17, 2023 report -- now, these 18 weren't all blown up, but if you look at their PLM 19 analysis that they did, they have these same kind 20 of -- on some of the -- some of the talc plates, 08:43 21 same kind of red around the talc plates. 22 So this is not an artifact. This is -- 23 this is what you would expect in some cases. So 24 in order to be an artifact, it has to have red -- 25 plates around -- red around everything. And it 08:43</p> <p style="text-align: right;">Page 310</p>

<p>1 doesn't.</p> <p>2 Q. Okay. We'll probably have to take that up</p> <p>3 at another time than today.</p> <p>4 And then I wanted to make sure that I was</p> <p>5 clear. Two quick questions about calculation of 08:43</p> <p>6 birefringence.</p> <p>7 A. Okay.</p> <p>8 Q. Let me go to -- we're going to talk about</p> <p>9 ISO if you want to call it up.</p> <p>10 A. I have it here still. 08:44</p> <p>11 Q. Okay. So grab it.</p> <p>12 A. Where are we here?</p> <p>13 Q. We don't need to mark it. ISO 22262-1.</p> <p>14 A. What page?</p> <p>15 Q. We talked about some of the definitions in 08:44</p> <p>16 here, but I didn't ask you about one of them. For</p> <p>17 example, we talked about the definition of alpha</p> <p>18 and gamma in here, which, for example, alpha being</p> <p>19 lowest refractive index exhibited by a fiber.</p> <p>20 I want to ask you about 2.12. 08:44</p> <p>21 A. 2.12.</p> <p>22 Q. Right here.</p> <p>23 "Definition of birefringence:</p> <p>24 Quantitative expression of the maximum</p> <p>25 difference in refractive index due to 08:45</p> <p style="text-align: right;">Page 311</p>	<p>1 interpret it the way -- the way that -- when you</p> <p>2 look at these different -- you know, you look at</p> <p>3 EPA and you look at some -- you know, some double</p> <p>4 refraction in Deer, Howie and Zussman, that's the</p> <p>5 way they evaluate ranges. 08:46</p> <p>6 Now, when you have -- when you have no</p> <p>7 range, you just have a gamma and alpha, how do you</p> <p>8 interpret that?</p> <p>9 Q. I don't understand. So, again, let's</p> <p>10 assume you have a range; right? 08:47</p> <p>11 A. Yes.</p> <p>12 Q. You're looking at this definition of</p> <p>13 birefringence. What does the word "maximum" mean?</p> <p>14 MR. REID: Asked and answered.</p> <p>15 Cumulative. 08:47</p> <p>16 Counsel, he's already given and discussed</p> <p>17 this with you now for --</p> <p>18 THE WITNESS: That's a misleading type of</p> <p>19 question because that has nothing to do -- or even</p> <p>20 says that if you have a range, you take a 08:47</p> <p>21 quantitative expression of the maximum difference</p> <p>22 in the gamma from the maximum -- the lowest amount</p> <p>23 from -- from alpha. It doesn't say that.</p> <p>24 This is how I interpreted it, and I'm not</p> <p>25 going to interpret it any other way because the 08:47</p> <p style="text-align: right;">Page 313</p>
<p>1 double refraction."</p> <p>2 What is your interpretation of the term</p> <p>3 "maximum difference" in that statement?</p> <p>4 A. The gamma versus the alpha. It says</p> <p>5 nothing about if you have a range. That's how I 08:45</p> <p>6 interpret that.</p> <p>7 Q. What does the word "maximum" there mean?</p> <p>8 A. It means the -- looking at the Michel-Levy</p> <p>9 charts, the highest -- the maximum difference</p> <p>10 means it's the gamma versus the alpha. 08:45</p> <p>11 Q. That's just the difference. What does the</p> <p>12 word "maximum" mean?</p> <p>13 A. That it's the highest one.</p> <p>14 Q. The biggest difference in alpha versus</p> <p>15 gamma? Is that what you're saying "maximum" 08:45</p> <p>16 means?</p> <p>17 A. No, it's not saying that. Does it say</p> <p>18 anything like that, the biggest difference between</p> <p>19 alpha and gamma; that if you have a range, that</p> <p>20 you take the highest alpha and subtract it out of 08:46</p> <p>21 the smallest gamma?</p> <p>22 And then when you go to the actual</p> <p>23 protocol on how to do birefringence, it has none</p> <p>24 of that in there.</p> <p>25 So you can interpret the way you want. I 08:46</p> <p style="text-align: right;">Page 312</p>	<p>1 underlying data, when you actually look at ranges</p> <p>2 in samples with no ranges, this is how it works</p> <p>3 out to be.</p> <p>4 BY MR. DUBIN:</p> <p>5 Q. Okay. We can talk about this more some 08:47</p> <p>6 other time.</p> <p>7 Do you know whether -- well, maybe I'll</p> <p>8 just save that.</p> <p>9 Let's see. Just curious. Talked about</p> <p>10 this a little bit for EPA R-93. I don't need to 08:48</p> <p>11 mark it.</p> <p>12 And we talked about whether these ranges</p> <p>13 here are for individual particles or for -- or</p> <p>14 just general ranges in which alpha and gamma could</p> <p>15 fall. 08:48</p> <p>16 If this was an individual particle --</p> <p>17 let's just take the top one -- 1.493 to 1.546 in</p> <p>18 alpha and 1.517 to 1.557 in gamma, what would that</p> <p>19 particle look like?</p> <p>20 A. What it would look like? 08:49</p> <p>21 Q. Yeah, what would it look like if it had</p> <p>22 that entire range in alpha and that entire range</p> <p>23 in gamma?</p> <p>24 A. I don't know.</p> <p>25 Q. Sure. I mean, have you ever seen a 08:49</p> <p style="text-align: right;">Page 314</p>

<p>1 chrysotile particle that would exhibit that entire 2 range in alpha and that entire range in gamma to 3 be an individual particle? 4 A. I have certainly seen the 1.546 and lower, 5 and I've certainly seen 1.557 and higher. But if 08:49 6 you want to take another one... 7 So it's not the point, if I've ever seen 8 it that low or that high. 9 If you go through any of these where you 10 have ranges, every one of these -- anthophyllite, 08:49 11 tremolite, amosite, chrysotile -- and do the 12 calculation, you'll get the same sort of -- you'll 13 get the birefringence. You won't get it taking 14 the highest gamma and the lowest alpha. 15 You sit down and start -- if you've ever 08:50 16 seen anything in this range, you know, they 17 referenced it from somewhere that, you know, maybe 18 it is the -- it could be across the board of this 19 particular scientist, what the ranges he found. 20 Q. Right. But for example -- 08:50 21 A. -- calculates -- 22 (Reporter clarification.) 23 MR. DUBIN: Just go ahead. I didn't 24 realize he wasn't done. 25 THE WITNESS: All right. I guess I'm 08:50 Page 315</p>	<p>1 was one particle or not. But you also have a 2 range of birefringence, so you're going to have a 3 range. 4 I think the one thing we can't dispute, 5 when you try to do the Dr. Sanchez method of 08:51 6 calculating the birefringence and try it on any of 7 these, it is -- I think when I went through this 8 exercise, there was only one that came -- that 9 actually hit the 0.017 with an overall average of 10 0.035 birefringence using the Dr. Sanchez method. 08:52 11 Q. Okay. 12 A. Using the EPA method on every one of these 13 here, they're always in the .004 to .017 range. 14 There might be one that's 1.20 -- or if you go to 15 amosite, do the calculations there, or go to 08:52 16 crocidolite, it all works out. 17 Q. We're obviously not going to be able to 18 accomplish this today, so we'll talk about that 19 some other time. 20 Let me just ask you, then, one more thing. 08:52 21 Have you seen this? 22 MR. DUBIN: So I will mark this as next in 23 order. Are we on 41? 24 THE REPORTER: I think so, yeah. 25 (Whereupon, Defendants' Exhibit 41 was 08:53 Page 317</p>
<p>1 done. 2 THE REPORTER: I didn't get it. 3 THE WITNESS: Oh. Well, just strike that, 4 then. 5 It doesn't matter if you ever found 08:50 6 chrysotile with this ranges or not. And this is 7 the total ranges. But if you just do the math on 8 the total ranges that they found, if you have a 9 1.493, okay, that would probably be the lowest 10 alpha ever found, and at 1.517 might be the lowest 08:51 11 gamma ever found. 12 But if you take the lowest alpha, subtract 13 it from the lowest gamma, and take the highest 14 gamma they've ever found and the highest alpha 15 they've ever found, it works out to the 08:51 16 birefringence range. 17 BY MR. DUBIN: 18 Q. Okay. We're going to have -- we'll just 19 have to do this some other time. 20 Because, Dr. Longo, again, that is 08:51 21 positing that there's a single -- you're talking 22 about birefringence of a single particle with an 23 alpha of 1.493 and a gamma of 1.557, right, which 24 no one is saying that particle even exists. 25 A. I don't know if I stated that or not, it 08:51 Page 316</p>	<p>1 marked for identification.) 2 BY MR. DUBIN: 3 Q. Have you seen this yet during your 4 practice of asbestos detection in pharmaceutical 5 talc? 08:53 6 A. Notice From the Expert Committee that 7 posted with this chapter, I don't think so. 8 When did that come out. 9 Q. Well -- 10 A. November of 2023, official date? Well, 08:54 11 we're not there yet. Status of official -- so 12 this came out a day ago, two days ago? 13 Q. Well, I'm not under oath here, and so -- I 14 think it's very recent. I won't tell you exactly 15 what date because I'm not sure if it was a couple 08:54 16 of days ago or not, but I think it's recent. 17 So I just asked you if you had seen it 18 yet. 19 A. I haven't. But now I've got to -- can you 20 mark that as an exhibit? 08:54 21 Q. I did. 22 A. Okay. Great. Because I'm not sure about 23 it. 24 Q. I'm not going to ask you -- 25 A. This is the -- was it expert committee or 08:54 Page 318</p>

<p>1 whatever?</p> <p>2 Q. Right. And I'm not going to ask you</p> <p>3 anything in depth about it, then. I just want to</p> <p>4 ask you about images -- some images here. And I</p> <p>5 think these images are actually in some of the 08:54</p> <p>6 older modernization stuff, too.</p> <p>7 The talc here -- and we're looking at just</p> <p>8 Figure 6. I'm not focusing on the chrysotile, but</p> <p>9 the talc. Does that look to you like what you</p> <p>10 would see through a PLM microscope of talc in 08:55</p> <p>11 1.550 RI liquid --</p> <p>12 A. 1.550. So I've got to go to 1.550 up</p> <p>13 here.</p> <p>14 Q. -- what talc should look like in 1.550 RI</p> <p>15 liquid? 08:55</p> <p>16 A. Do we know what talc this is?</p> <p>17 Q. I'm just asking talc in general.</p> <p>18 A. Well, you can't say talc in general</p> <p>19 because different talcs have different mine</p> <p>20 sources. Talcs look different. 08:55</p> <p>21 I've seen it look like that. I've seen it</p> <p>22 look different.</p> <p>23 Q. And under which circumstances have you</p> <p>24 seen it look different, just in your own work</p> <p>25 or -- or anything -- anyplace else? 08:56</p> <p style="text-align: right;">Page 319</p>	<p>1 like what you're identifying as chrysotile in the</p> <p>2 retailer's product?</p> <p>3 A. No. One thing is the particulates. And</p> <p>4 two, if you have the fibrous talc, your refractive</p> <p>5 indices are going to be so different, you may, 08:58</p> <p>6 between the gamma and the -- the gamma and the</p> <p>7 alpha, and if you turn this, you show the</p> <p>8 perpendicular, they don't change much.</p> <p>9 Q. This should be perpendicular. Okay.</p> <p>10 A. It's the same thing, where if you have 08:58</p> <p>11 fibrous talc, you're going to get typically a very</p> <p>12 bright bluish -- darkish bluish color, and none of</p> <p>13 those particles do any of that.</p> <p>14 Q. Well --</p> <p>15 A. When you go to chrysotile in the 08:59</p> <p>16 perpendicular, you get a bluish, sometimes darker</p> <p>17 bluish color, where the intensity of the</p> <p>18 birefringence is very much lower.</p> <p>19 MR. DUBIN: I have reached my allotted</p> <p>20 time for today, Dr. Longo, so we'll have to take 08:59</p> <p>21 some of these things up later. Thank you very</p> <p>22 much.</p> <p>23 I'll pass to the next person.</p> <p>24 THE WITNESS: Thank you, sir.</p> <p>25 And let's see. It's -- can we jump right 08:59</p> <p style="text-align: right;">Page 321</p>
<p>1 A. Well, I'll just look at -- I'll just reach</p> <p>2 over and look at Segrave's work or whoever did the</p> <p>3 PLM analysis, because that's not his deal. His</p> <p>4 looked like mine, you know, the ones that you were</p> <p>5 pointing out earlier. 08:56</p> <p>6 So, you know, where that came from or what</p> <p>7 that talc is, I've seen that in other samples,</p> <p>8 but -- so, you know, we've probably analyzed close</p> <p>9 to 500 cosmetic talc samples now from different</p> <p>10 manufacturers. I would like to know what the mine 08:57</p> <p>11 is.</p> <p>12 Q. So I'm going to let other people ask about</p> <p>13 the Segrave work.</p> <p>14 But just do you know, off the top of your</p> <p>15 head, when you're referring to the Segrave images 08:57</p> <p>16 of talc, are those in 1.550 RI or 1.560 RI or</p> <p>17 higher?</p> <p>18 A. At least what I see here, it's all in</p> <p>19 1.550 --</p> <p>20 Q. Well, I -- 08:57</p> <p>21 A. -- because he was -- he was working on</p> <p>22 behalf of Longs, that analysis initially. This</p> <p>23 is -- I think he -- mainly on the Longs stuff,</p> <p>24 which when we did the analysis, we did 1.550.</p> <p>25 Q. Do you think the talc particles here look 08:57</p> <p style="text-align: right;">Page 320</p>	<p>1 into the next, or...</p> <p>2 MR. HINES: Do you need a break or...</p> <p>3 THE WITNESS: Well, I wouldn't mind</p> <p>4 getting another cup of coffee.</p> <p>5 MR. HINES: Fine by me. Go ahead. 08:59</p> <p>6 THE VIDEOGRAPHER: We are going off the</p> <p>7 record at 11:59 a.m.</p> <p>8 (Recess taken.)</p> <p>9 THE VIDEOGRAPHER: This is Media Number 2.</p> <p>10 We are back on the record at 12:10 p.m. 09:10</p> <p>11 EXAMINATION BY MR. HINES:</p> <p>12 Q. Dr. Longo, my name is Jeff Hines. I</p> <p>13 represent Perrigo of Tennessee. We met briefly</p> <p>14 before. It's nice to see you again. I'm glad</p> <p>15 you're in good health. 09:10</p> <p>16 A. Good to see you, sir.</p> <p>17 Q. Good to see you.</p> <p>18 I wanted to ask you about your analysis of</p> <p>19 Longs Baby Powder.</p> <p>20 A. Sure. 09:10</p> <p>21 Q. And it would be MAS Project M71303 and</p> <p>22 M71309; is that accurate?</p> <p>23 A. It is.</p> <p>24 Q. I had those reports dated in April of</p> <p>25 2021. I believe that's when you prepared them. 09:10</p> <p style="text-align: right;">Page 322</p>

<p>1 Is that accurate?</p> <p>2 A. Yeah. The report date is April 13, 2021.</p> <p>3 And I have it in front of me, so anything</p> <p>4 you want to go to, I can probably find.</p> <p>5 Q. Okay. So have you done any additional 09:11</p> <p>6 analysis of the 15 Longs Baby Powder bottles since</p> <p>7 April of 2021?</p> <p>8 A. I have not.</p> <p>9 Q. Do you intend to do any additional</p> <p>10 analysis prior to trial in this case? 09:11</p> <p>11 A. No, sir, I have no -- nothing scheduled to</p> <p>12 do any additional analysis unless I'm asked by my</p> <p>13 client, and my client has not asked me. And I'm</p> <p>14 assuming, since trial seems to be starting next</p> <p>15 week, I will not get any requests to do any 09:11</p> <p>16 additional analysis.</p> <p>17 Q. Have you examined any other bottles of</p> <p>18 Longs Baby Powder since April of 2021 other than</p> <p>19 those set forth in your report?</p> <p>20 A. Not that I recall. I certainly haven't 09:11</p> <p>21 written any reports associated with Longs Baby</p> <p>22 Powder.</p> <p>23 Q. When I spoke to you in 2021, you indicated</p> <p>24 that you were considering doing a TEM analysis, a</p> <p>25 TEM analysis on the chrysotile features that had 09:12</p> <p style="text-align: right;">Page 323</p>	<p>1 And I don't want to, you know, get caught</p> <p>2 up in something like -- you know, we're -- you</p> <p>3 know, Alan -- Mr. Segrave develops a standard; he</p> <p>4 says it's, you know, 0.1 percent and "I can find</p> <p>5 it all over the place by SEM." 09:14</p> <p>6 Well, that's not the concentration we're</p> <p>7 seeing, and it's not appropriate to use the 1866b</p> <p>8 standard to make a standard. It's -- the only</p> <p>9 thing that works is, really, the Calidria.</p> <p>10 I guess that's the long answer for why we 09:14</p> <p>11 haven't done TEM yet.</p> <p>12 Q. Okay. Well, thank you very much. It was</p> <p>13 a complete answer, and I do appreciate that.</p> <p>14 Have you viewed any of the Longs product</p> <p>15 in the 1.560 refractive oil? 09:14</p> <p>16 A. We have not.</p> <p>17 Q. And why is it that you have decided not to</p> <p>18 do that?</p> <p>19 A. Well, on April 13, 2021, we weren't</p> <p>20 considering using 1.560. We have, you know, 09:14</p> <p>21 easily, two months -- a month or two of work here,</p> <p>22 to go back and do it in 1.560.</p> <p>23 We have done other samples in 1.560, and</p> <p>24 as predicted -- at least as I predicted -- you get</p> <p>25 different -- you get a color change in 1.560, but 09:15</p> <p style="text-align: right;">Page 325</p>
<p>1 been discovered. Have you done that?</p> <p>2 A. No, sir, I haven't.</p> <p>3 Q. Can you explain why you've chosen not do</p> <p>4 that since 2021?</p> <p>5 A. We have been working diligently, not -- I 09:12</p> <p>6 mean, when we can -- on the research side of</p> <p>7 things to come up with the most efficient -- when</p> <p>8 I say "efficient," heavy liquid density separation</p> <p>9 for the chrysotile.</p> <p>10 We're getting closer and closer. You 09:12</p> <p>11 know, what is the best heavy density liquid</p> <p>12 material? You know, is it the -- is it the</p> <p>13 material that everybody is using, the lithium --</p> <p>14 or is, you know, methylene iodide a better one</p> <p>15 because it's less viscous, and what is the best 09:13</p> <p>16 heavy density liquid to use?</p> <p>17 You know, we are now using 2.65, but we're</p> <p>18 still finding stuff in the pellet. So we're</p> <p>19 trying to get it so that --</p> <p>20 And also, you know, trying to calculate 09:13</p> <p>21 our detection limit so that we know what</p> <p>22 concentration we have, such as -- you know, one of</p> <p>23 our highest concentrations -- and I was looking</p> <p>24 through here, you know -- is 0.012 or -13 -- yeah,</p> <p>25 one zero -- or two zeros. 09:13</p> <p style="text-align: right;">Page 324</p>	<p>1 you do not get a change in, really, the refractive</p> <p>2 indices.</p> <p>3 We used 1.560 because I think in</p> <p>4 Mr. Segrave's report back in April, he suggested</p> <p>5 that we needed to do that. 09:15</p> <p>6 Gunter has suggested that we needed to use</p> <p>7 a higher refractive indice.</p> <p>8 And then Dr. Su published a paper in a</p> <p>9 journal called The Microscope on the second</p> <p>10 quarter of 2022, and he said that you've got to 09:15</p> <p>11 use -- he said a couple things.</p> <p>12 He said, one, that the 1866b refractive</p> <p>13 indices, you can't -- that's not going to be --</p> <p>14 basically, he said you are going to have other</p> <p>15 chrysotile minerals that have significantly higher 09:16</p> <p>16 refractive indices than the 1866b, which I agree</p> <p>17 with.</p> <p>18 He also said you needed to use 1. -- you</p> <p>19 need to use the -- the RI fluid needs to be in the</p> <p>20 ranges that you're seeing. 09:16</p> <p>21 We're seeing, you know, 1.560 up to about</p> <p>22 1.570, so 1.560 is a -- is a good standard for</p> <p>23 that. And we may go on to try 1.565, but I don't</p> <p>24 know. Then we have to calculate our own</p> <p>25 wavelengths -- I mean wavelengths and refractive 09:16</p> <p style="text-align: right;">Page 326</p>

<p>1 indices.</p> <p>2 Q. So -- and I don't want to get in a debate</p> <p>3 with you with color. I just want to ask you sort</p> <p>4 of a general question.</p> <p>5 It seems, especially with the Longs 09:17</p> <p>6 report, that a lot of the color you're seeing with</p> <p>7 regard to the chrysotile in -- in horizontal or</p> <p>8 parallel has a yellow color to it. Would you</p> <p>9 agree with that?</p> <p>10 A. I would agree. Yellowish-gold. 09:17</p> <p>11 Q. And I've heard you express that as being</p> <p>12 Calidria-like. And my question to you, are you</p> <p>13 saying that the chrysotile fibers that you found</p> <p>14 in the Longs Baby Powder are Calidria?</p> <p>15 A. No. Calidria is a trade name. 09:17</p> <p>16 Q. But isn't Calidria from a particular mine</p> <p>17 in California?</p> <p>18 A. Yes. It's the Union -- it was -- used to</p> <p>19 be the Union Carbide mine, and Calidria was their</p> <p>20 trade name for it. It's chrysotile. I'm not 09:17</p> <p>21 saying that it is Calidria. I mean, that's a</p> <p>22 Union --</p> <p>23 But, you know, we have used a UCC product</p> <p>24 called SG-210 and SG- -- excuse me -- SG-210 and</p> <p>25 RG-144. The SG-210 has an average size of about 09:18</p> <p style="text-align: right;">Page 327</p>	<p>1 there's some iron in the -- some iron in the --</p> <p>2 but very little. And you can find iron -- you</p> <p>3 know, these little bumps of iron in the SG-210,</p> <p>4 and sometimes you don't.</p> <p>5 So I think it has to do with the size of 09:20</p> <p>6 the structure. I think --</p> <p>7 We recently took 1866b, and we milled it,</p> <p>8 and we have a -- we now have a liquid nitrogen</p> <p>9 ball mill, so you can make the chrysotile</p> <p>10 brittle -- it will grind up, which is very hard to 09:20</p> <p>11 do -- and we get similar refractive indices;</p> <p>12 1.560, 1.562, 1.559. As we're seeing -- and</p> <p>13 what's the difference? The size. I believe the</p> <p>14 size has an effect on it.</p> <p>15 Now, Dr. Sanchez does not agree with that. 09:20</p> <p>16 He says that's completely wrong.</p> <p>17 Q. Let me see if I can -- let me see if I can</p> <p>18 synthesize what you are telling me.</p> <p>19 So a theory would be you could have a</p> <p>20 chrysotile fiber, let's say of industrial size, 09:21</p> <p>21 and if it was milled, in that scenario, it would</p> <p>22 be -- all things being static, it would be magenta</p> <p>23 color; right, Doctor?</p> <p>24 A. An added product, a bundle -- you know,</p> <p>25 you don't see, really, individual fibers in PLM. 09:21</p> <p style="text-align: right;">Page 329</p>
<p>1 10 microns in length. What we're seeing in these</p> <p>2 cosmetic talcs, the average size is about</p> <p>3 10 microns in length. The SG-210 in 1.550 will</p> <p>4 give you this yellowish-gold color, and that was</p> <p>5 verified by Dr. Mickey Gunter. 09:18</p> <p>6 So when I -- so the SG-210 is a good --</p> <p>7 is -- is -- gives us, really, what we're seeing</p> <p>8 within a couple -- in the ranges of -- in 1.550,</p> <p>9 we're seeing the same ranges of color in parallel</p> <p>10 that we see in -- 09:19</p> <p>11 (Audio interference and Reporter</p> <p>12 clarification.)</p> <p>13 THE WITNESS: -- the J&J.</p> <p>14 And, of course, it has been highly</p> <p>15 criticized. What, two and a half years now, 09:19</p> <p>16 trying to dodge the tomatoes that have been coming</p> <p>17 across about this -- that --</p> <p>18 BY MR. HINES:</p> <p>19 Q. Well, I don't have any tomatoes. I'm just</p> <p>20 going to ask you a question. 09:19</p> <p>21 A. I'm making light of the fact that there's</p> <p>22 been a lot of criticism on this because it's not</p> <p>23 magenta in parallel.</p> <p>24 And we took a look at, what is the</p> <p>25 difference? What is the difference here? Yeah, 09:19</p> <p style="text-align: right;">Page 328</p>	<p>1 They're too small. So you're seeing bundles.</p> <p>2 Asbestos-added chrysotile bundles will give you</p> <p>3 that magenta in the parallel.</p> <p>4 Q. Okay. So I want you --</p> <p>5 A. And Calidria would give you -- if you have 09:21</p> <p>6 a bundle the size that you're seeing in these --</p> <p>7 in these -- you know, these standards, like an</p> <p>8 ISO, et cetera, I think it's going to be -- also</p> <p>9 be magenta --</p> <p>10 Q. Okay. And so during -- 09:22</p> <p>11 A. -- if you have them that size.</p> <p>12 However, as it gets smaller and smaller in</p> <p>13 size, it starts going more to different color</p> <p>14 refractive indices.</p> <p>15 It has to be a size or there's something 09:22</p> <p>16 else different about the chrysotile we're finding</p> <p>17 in cosmetic talc which matches the refractive</p> <p>18 indices ranges that we see in the Calidria.</p> <p>19 Q. Okay. Now, you were -- you had mentioned</p> <p>20 Dr. Sanchez had some criticisms of your position 09:22</p> <p>21 in this area.</p> <p>22 Has anyone, to your knowledge, written a</p> <p>23 scientific paper where this theory or observation</p> <p>24 by you has been published and set forth in some</p> <p>25 scientific journal? 09:23</p> <p style="text-align: right;">Page 330</p>

<p>1 A. Not that I know of, not that I can find, 2 that anybody has come up with this theory on the 3 size. 4 But I do see one thing that gives me 5 pause, is if you look at some of the -- if you 09:23 6 look at the Michel-Levy charts for determining the 7 birefringence, one of the parameters is the 8 thickness, the height of what are you looking at. 9 Now, there's -- you know, some people say 10 there's reasons for that and you're doing -- 09:23 11 looking at something different, et cetera, et 12 cetera, but it does have a height. 13 If you look at, for example, the 22261- -- 14 22262-1 and go to the, quote -- oh, where is it? 15 We see it all the time. 09:24 16 You know, this picture keeps coming up 17 over and over, on page 43, where it has SR- -- in 18 Figure D3, SRM 1866 chrysotile in 1.550. 19 And if you look at all the bundles going 20 through there, not every one of them is magenta. 09:24 21 You have a yellowish-whitish one going right 22 through the -- if you were to -- if you were to 23 take the main bundle and go down just a few 24 smaller bundles, that's a different color. 25 Q. Okay. 09:24</p> <p style="text-align: right;">Page 331</p>	<p>1 A. On the thickness? 2 Q. No. On your position that short 3 chrysotile fibers under certain circumstances will 4 have a yellowish color. 5 A. You know, I have not published it, you 09:26 6 know, and neither had a manuscript accepted or 7 rejected on the finding of chrysotile in cosmetic 8 talcs. 9 Now, has somebody else out there published 10 it? I'm not sure anybody has really looked at 09:26 11 this before, because most everything you see is 12 asbestos-added products and, you know, there's 13 really no dispute there about the chrysotile. 14 Q. So there are other people in your field 15 that analyze minerals and try to do the same type 09:27 16 of job you do; correct? 17 A. I don't know if there's other people, one 18 way or the other, doing the same type of job I do. 19 You know, there's a lot of contract labs out 20 there. Our lab is more of a, "Well, let's figure 09:27 21 out why." 22 Q. Right. Well, you jumped to the -- you 23 jumped to the answer before -- the second answer 24 before I got my first answer, which was, there are 25 other people -- other mineralogists out there that 09:27</p> <p style="text-align: right;">Page 333</p>
<p>1 A. And if you look over in the -- in the 2 perpendicular, you can see that we have a -- kind 3 of a purplish -- we're out of the blue range in a 4 couple of those. Well, why is that doing that? 5 Sanchez says because it's out of focus. Well, it 09:25 6 doesn't look out of focus to me. It looks like we 7 have a thickness issue. 8 Q. So do you intend to publish any scientific 9 theory -- I'm sorry -- scientific paper espousing 10 this theory? 09:25 11 A. You bet. 12 Q. And are you currently -- 13 A. I think I've got too much data that shows 14 this. We have -- 15 Q. Are you -- have you -- I'm sorry. I 09:25 16 didn't mean to cut you off. Excuse me. Go ahead. 17 A. That's okay. I'm talking too much. I'm 18 wasting your-all's time, I think, at some point. 19 Q. No, no, no. You're not wasting my time. 20 I enjoy talking to you. My first bad grade in 09:25 21 college was geology, so this is hard for me. 22 So it is true, is it not, that nobody in 23 your field has written a scientific paper where 24 this theory has been addressed, either positively 25 or negatively? 09:26</p> <p style="text-align: right;">Page 332</p>	<p>1 perform the same or similar services to you; 2 correct? 3 A. Yeah. There's a whole bunch of contract 4 labs out there -- 5 Q. Okay. And you don't know -- sitting here 09:28 6 today, you don't know whether any of those 7 contract labs or other people in your field 8 espouse this same -- what I am going to call 9 Calidria theory that you have, do you? 10 MR. REID: Counsel, be sure that you allow 09:28 11 the witness to fully respond. There's not going 12 to be any more interruptions. All right? 13 Go ahead. 14 MR. HINES: Well, I'm going to ask my 15 questions, and you put in your objection. 09:28 16 BY MR. HINES: 17 Q. But go ahead. 18 MR. REID: No. It's going to be -- 19 MR. HINES: You've done your objection. 20 You've done your objection. 09:28 21 MR. REID: Counsel -- Counsel -- 22 MR. HINES: You've done your job. Move 23 on. 24 MR. REID: Counsel -- Counsel, if you 25 continue to interrupt the witness, I will suspend 09:28</p> <p style="text-align: right;">Page 334</p>

<p>1 the deposition and get a discovery ref. 2 MR. HINES: Good. Good. 3 MR. REID: Good. 4 BY MR. HINES: 5 Q. So can you answer the question, Dr. Longo? 09:28 6 A. I can. I do know -- he's not a contract 7 lab -- Dr. Mickey Gunter -- by Court order, we 8 sent him Calidria -- we sent him SG-210 chrysotile 9 and RG-144 chrysotile from Union Carbide. And in 10 1.550, he said that he was getting in the parallel 09:29 11 direction yellowish-gold colors. 12 Also, we sent him -- we have -- we took 13 some photographs of Calidria in -- I don't -- I 14 keep calling it Calidria -- of SG-210 chrysotile 15 in a bentonite that was spiked into a bentonite 09:29 16 matrix. 17 And those perpendicular -- excuse me -- 18 parallel photographs were shown to Dr. Gunter, and 19 he said that that was talc plates on edge, even 20 though as far as we can tell, there is no talc in 09:30 21 the Calidria SG-210, at least not that we've been 22 able to find. 23 And Dr. Gunter, who I've been told wrote 24 five books and has been doing this for ages, said 25 that there is no talc in the -- in the Coalinga 09:30 Page 335</p>	<p>1 micron bars on it should say -- should be 1 -- 2 should not be 100 microns but should be 3 10 microns. Kind of interesting. 4 But that must be one of the first samples 5 we did here, and I can't believe that got by me 09:32 6 when I did the QC on this thing. 7 Q. Am I correct that when you did your Longs 8 powder analysis, you did not find any grunerite? 9 A. That's correct. 10 Q. And you didn't find any richterite? 09:33 11 A. I think the only thing -- the only 12 amphiboles we found were tremolite. 13 Q. Okay. So you wouldn't have found any 14 winchite either? 15 A. No, sir. 09:33 16 Q. So I'm going to put up on the screen 17 some -- just -- I'm not going to go through your 18 whole report. I just want to put an exemplar up 19 so that we -- I can sort of understand your 20 testimony. 09:33 21 So let me -- 22 MR. HINES: Does everybody have that. 23 THE WITNESS: Section 8. 24 BY MR. HINES: 25 Q. Okay. All right. 09:34 Page 337</p>
<p>1 mine. 2 So this is something I don't think people 3 have -- other PLM analysts really have taken into 4 account. They see yellow, and they automatically 5 say it is fibrous talc. And it's not. They don't 09:30 6 take into account the birefringence. 7 Q. So, Dr. Longo, when I was listening to 8 some of your earlier deposition testimony in this 9 case, there was some testimony that came out about 10 how you had updated your PLM equipment and were 09:30 11 now utilizing the new equipment. And you 12 explained it and did a nice job of explaining it. 13 My question to you: Was that equipment 14 that you are using now the same equipment that you 15 used in April of 2021 to analyze the Longs 09:31 16 product? 17 A. I would say yes, I believe so. 18 Q. And what is the product that you are using 19 now when you analyze particles under PLM? 20 A. Well, it's a Leica PLM microscope that has 09:31 21 LED, has high-resolution camera built into it, 22 goes to a monitor. 23 But it does -- it did have a -- yeah, 24 these are some of the first ones, because it had a 25 glitch that nobody caught, including me. The 09:32 Page 336</p>	<p>1 A. Let me see what Section 8 is. And I'll 2 get to it. 3 Section 8, I don't have on here. Okay. 4 Section 8. Let me get to Section 8. 5 Section 11... 09:34 6 Section 8. 7 Q. Okay. And if what's on the screen doesn't 8 match what you are looking at, please let me know. 9 It's been -- 10 A. Sure. 09:34 11 Q. -- no attempt on my part to thwart your 12 analysis, but -- I think we copied the pages 13 correctly. 14 So what I'm looking at, I'm looking at -- 15 A. That's the right page. 09:34 16 Q. Okay. And just for the record, we're 17 going to identify that as M71309-002ISO, and we 18 are talking about a powder that was received from 19 Dora Hayes; correct? 20 A. Correct. 09:34 21 Q. And the temperature of the lab on that 22 particular day was 21 degrees? 23 A. Correct. 24 Q. And under optical data for asbestos 25 identification, I want to go down to the alpha and 09:35 Page 338</p>

<p>1 the gamma.</p> <p>2 Do you see that, sir?</p> <p>3 A. I do.</p> <p>4 Q. And then you have 630 for alpha and 450</p> <p>5 for the gamma; is that correct? 09:35</p> <p>6 A. Well, for gamma, we have a range of 1.558</p> <p>7 to --</p> <p>8 Q. No, I understand that, but I want to just</p> <p>9 stay -- I'm trying to find out what the reason was</p> <p>10 for putting 630 and 450 in that particular 09:35</p> <p>11 location.</p> <p>12 A. Oh, that's the alpha and gamma nanometers</p> <p>13 wavelengths range for all the -- you know, for all</p> <p>14 the different ones that we've done for this</p> <p>15 particular sample. So -- 09:35</p> <p>16 Q. Okay. So -- go ahead.</p> <p>17 A. So we put -- okay, our alpha was 630, and</p> <p>18 our gamma was 450. That would be the highest and</p> <p>19 the lowest.</p> <p>20 Q. Okay. All right. So I want to go down a 09:36</p> <p>21 little bit lower. And you've got comments. These</p> <p>22 comments are made by Mr. Hess; is that correct?</p> <p>23 A. Correct.</p> <p>24 Q. And he's identified 28 chrysotile</p> <p>25 structures? 09:36</p> <p style="text-align: right;">Page 339</p>	<p>1 why I took down the exhibit.</p> <p>2 MR. REID: No, no. I was saying Bill was.</p> <p>3 THE WITNESS: Sorry about that. I don't</p> <p>4 know what I hit.</p> <p>5 Okay. So -- 09:38</p> <p>6 BY MR. HINES:</p> <p>7 Q. Okay. So let me ask you a question, then,</p> <p>8 because I've shared the screen.</p> <p>9 Do you see what I have marked out there as</p> <p>10 M71309-002ISO-001? 09:38</p> <p>11 A. Correct.</p> <p>12 Q. So I just want to understand how Mr. Hess</p> <p>13 does his analysis. Does he look at the color of</p> <p>14 the part that's marked chrysotile, which is the</p> <p>15 green arrows, and go to some type of index to 09:39</p> <p>16 determine what nanometer he's seeing that color</p> <p>17 at?</p> <p>18 A. Yes.</p> <p>19 Q. And what did your office do in 2021 to</p> <p>20 ascertain that color -- I mean -- I'm sorry -- to 09:39</p> <p>21 ascertain that nanometer?</p> <p>22 A. Well, we have a, you know, visible</p> <p>23 spectrum on light that ranges from about 300 --</p> <p>24 200, 300 nanometers on the high side all the way</p> <p>25 down to, like, 800 to 900 nanometers, and then it 09:39</p> <p style="text-align: right;">Page 341</p>
<p>1 A. Correct.</p> <p>2 Q. And he's identified those structures as to</p> <p>3 having a gamma range between 1.558 to 1.568?</p> <p>4 A. That's -- that is the range.</p> <p>5 Q. Okay. And the same thing with alpha, from 09:36</p> <p>6 1.549 to 1.557?</p> <p>7 A. Yes. And you can see that's the 630. If</p> <p>8 you go up there, that's the -- that would be</p> <p>9 the -- the alpha, the lowest alpha, and -- and</p> <p>10 then the range -- so he has a range there from 630 09:37</p> <p>11 to -- on alpha to 540.</p> <p>12 Q. So I'm looking -- I'm trying to show you</p> <p>13 now a picture of a chrysotile talc particle. It's</p> <p>14 M71309-002ISO-001. So we're dealing with talc</p> <p>15 chrysotile fiber 001; is that accurate? 09:37</p> <p>16 Is that accurate? I can't see you, so...</p> <p>17 MR. REID: Bill, you somehow got muted.</p> <p>18 MR. HINES: How did I get muted? Hold on.</p> <p>19 THE WITNESS: Okay. How did I get muted?</p> <p>20 I didn't think I touched anything, but who knows. 09:38</p> <p>21 Can you hear me now?</p> <p>22 MR. COWAN: Jeff, now you're muted.</p> <p>23 MR. HINES: I can hear you now. I didn't</p> <p>24 know -- when Michael chimed in we were muted, I</p> <p>25 thought he was saying I was muted. So that's 09:38</p> <p style="text-align: right;">Page 340</p>	<p>1 has a color range.</p> <p>2 If you're up around the 400 to 425 or</p> <p>3 whatever, you have yellow, and if you get down to</p> <p>4 the 800 range, you will have the very -- you will</p> <p>5 have light blues, if I recall correctly. And then 09:40</p> <p>6 you look at that, and you make a decision on</p> <p>7 whereabouts your color range is hitting.</p> <p>8 So the 1.5, you know, RIs are -- the</p> <p>9 chrysotile RIs are on the parallel from 64 to 68,</p> <p>10 so you are going to have yellowish-reddish colors 09:40</p> <p>11 there. And then you look at the talc, that's</p> <p>12 almost white.</p> <p>13 Q. Okay.</p> <p>14 A. That means you're off the spectra. So</p> <p>15 it's got to be greater than 1.590. 09:40</p> <p>16 And you are looking at exactly why this is</p> <p>17 not misidentification of talc, because the</p> <p>18 birefringence is way too high to be confused with</p> <p>19 chrysotile.</p> <p>20 Q. I want to go down a little bit further. 09:41</p> <p>21 That's --</p> <p>22 A. Yeah, now we're looking</p> <p>23 at perpendicular --</p> <p>24 Q. No, I don't want to -- I understand that,</p> <p>25 Doctor. I'm trying to go through a little 09:41</p> <p style="text-align: right;">Page 342</p>

<p>1 quicker. I understand about that particular 2 screen. 3 In this particular screen, which we're 4 still examining particle 1 but it's the elongation 5 view -- are you there, Doctor? 09:41 6 A. Yeah, I'm looking at it. 7 Q. Okay. So how does the elongation view 8 help you determine whether something is chrysotile 9 as opposed to talc? 10 A. Well, the first thing we do is we look at 09:41 11 the difference between the two. You can see the 12 talc section. You've got blues under it. 13 So you've got thickness there. So now 14 you're getting in the second and third order for 15 the talc side, and when the -- second and third 09:41 16 order, maybe a little in the first order from the 17 Michel-Levy charts. 18 And, also, looking at the structure here, 19 it's not typically what we see, and again -- but 20 we don't do this in a vacuum. We also look at the 09:42 21 perpendicular. 22 So the elongation is telling us that at 23 least on the chrysotile side, we have a slow 24 length. So we have positive elongation. And that 25 thickness of that particular side on the talc, 09:42 Page 343</p>	<p>1 assist you in making a determination as to what is 2 chrysotile and what's talc? 3 A. If you look at the talc end, you're going 4 to see individual bundles making up this big 5 bundle, where you go over to -- I mean the 09:44 6 chrysotile end. Excuse me. I think I said "talc 7 end" -- you see the talc end, you've just got 8 mostly straight, you know, platy structures, in my 9 opinion. 10 So you get the morphology here. And 09:44 11 because of the size of it, you are not going to 12 get splayed ends that people typically use for 13 asbestos-added products. 14 So that's -- that gives a good example of 15 a chrysotile talc intergrowth bundle. 09:44 16 Q. And what do you mean by "intergrowth"? Is 17 it the same -- is it the same particle, or two 18 particles have formed together? Could you 19 elaborate on that, please. I don't understand it. 20 A. "Intergrowth" means you're getting a 09:44 21 metamorphic process, where the chrysotile is 22 metamorphing into a fibrous talc-type structure, 23 what I would call a fibrous talc structure, versus 24 talc plates on edge, or a complete fibrous talc 25 structure. 09:45 Page 345</p>
<p>1 which is -- when you have a blue around it, also 2 it's in the positive elongation. 3 So just looking at the elongation by 4 itself, no. I would want to see the refractive 5 indices, too, to differentiate the two. 09:42 6 Q. Are you finished, sir? 7 A. Yes. 8 Q. Okay. So I want to go down a little bit 9 further. And this is giving us a different view 10 of the same fiber on cross polars. How does cross 09:43 11 polars -- 12 A. Cross polars, now we are looking -- I look 13 at a lot of structure. If -- at least if -- on 14 the chrysotile end, you're seeing individual 15 bundles, it's fibrous, and then it starts morphing 09:43 16 into the talc end, where the chrysotile end on 17 this is, again, second order -- second order 18 colors, where the talc end is up in your -- my 19 opinion, in your third order color. 20 So you're seeing a difference in the -- 09:43 21 the interference colors here. 22 Q. Okay. Anything else? 23 A. That's it. 24 Q. Okay. And I want to go down here to see 25 the -- with the polarizer out. How does this 09:43 Page 344</p>	<p>1 Q. This is the second particle. I want to 2 jump ahead to another exhibit. 3 So this is Exhibit -- 4 MR. HINES: What's the next exhibit? I 5 should have marked the first one and then marked 09:45 6 this one, so what were the next two numbers? 7 THE REPORTER: I think the last one was 8 41, so we're on 42. 9 MR. HINES: Well, did you -- the 10 first doc- -- well, I want to -- let me go back. 09:46 11 So we were looking at this document right 12 here, which is an excerpt from his report. I 13 wanted to mark that. Would that be 41? 14 THE REPORTER: The last one was 41, so 15 this one would be 42. 09:46 16 MR. HINES: Okay. So this is 42. 17 (Whereupon, Defendant's Exhibit 42 was 18 marked for identification.) 19 BY MR. HINES: 20 Q. So, Doctor, what I have done is, I've 09:46 21 broken out from 41 the TEM analysis for that 22 particular powder. So we're still dealing with 23 Jane (sic) Callan's fiber -- actually, I mean, the 24 analysis is being done by Jane Callan, but we're 25 still dealing with the fiber that we just talked 09:47 Page 346</p>

<p>1 about.</p> <p>2 A. Can you make that a little bigger so I can</p> <p>3 make sure I'm on the right thing?</p> <p>4 Q. Yeah. Let me see.</p> <p>5 A. I just don't want -- I just want -- 09:47</p> <p>6 Q. Yeah, this would have been -- this is</p> <p>7 still Dora Hayes' analysis.</p> <p>8 A. Number 002; is that right?</p> <p>9 Q. Yeah, 002.</p> <p>10 A. Okay. I've got it. 09:47</p> <p>11 Q. Okay. And I tried to make it a little bit</p> <p>12 better for you. Okay?</p> <p>13 A. Okay.</p> <p>14 Q. So just running through, this is the fiber</p> <p>15 that was identified? 09:47</p> <p>16 A. Well, it's a bundle --</p> <p>17 Q. Okay.</p> <p>18 A. -- fiber.</p> <p>19 Q. Well, that's sort of my question to you.</p> <p>20 First, a couple questions. 09:47</p> <p>21 Do you agree that there's a distinction</p> <p>22 between asbestos-form tremolite and</p> <p>23 nonasbestos-form tremolite?</p> <p>24 A. Yeah, I agree.</p> <p>25 Q. And you would agree that nonasbestos-form 09:48</p> <p style="text-align: right;">Page 347</p>	<p>1 it has -- and it has --</p> <p>2 (Audio interference.)</p> <p>3 THE WITNESS: It says I have an unstable</p> <p>4 Internet. Can you hear me now?</p> <p>5 THE REPORTER: Yeah. 09:49</p> <p>6 THE WITNESS: Let me turn up the volume.</p> <p>7 It has substantially parallel sides, and</p> <p>8 it's a bundle; that's regulated asbestos. And</p> <p>9 being a bundle, by definition, is asbestiform.</p> <p>10 BY MR. HINES: 09:49</p> <p>11 Q. And can you give me a layman's description</p> <p>12 of a bundle?</p> <p>13 A. More than two fibrils touching each other.</p> <p>14 This one has multiple ones.</p> <p>15 Q. And is there a way of looking at this 09:50</p> <p>16 picture where someone with your expertise can</p> <p>17 determine that you have fibrils touching each</p> <p>18 other?</p> <p>19 A. Well, if you start at the bottom, you can</p> <p>20 see -- this looks like a ledge. 09:50</p> <p>21 Q. And I'm going to use my cursor just so I</p> <p>22 understand. Is this the ledge?</p> <p>23 A. Right there, when you get there -- so that</p> <p>24 shows you that you -- that you have a space and</p> <p>25 then a fibril. 09:50</p> <p style="text-align: right;">Page 349</p>
<p>1 tremolite is not considered harmful to human</p> <p>2 beings?</p> <p>3 A. Well, that's out of my pay grade. I don't</p> <p>4 testify --</p> <p>5 Q. Okay. 09:48</p> <p>6 A. -- about that.</p> <p>7 But I think there's -- you know, there is</p> <p>8 science on both -- there's other experts that</p> <p>9 don't have that opinion.</p> <p>10 But I don't try to define it as harmful or 09:48</p> <p>11 not harmful. We just identify it, if it's there</p> <p>12 or not.</p> <p>13 Q. Right. And so in this particular case,</p> <p>14 you're looking at a fiber --</p> <p>15 A. No. Bundle. 09:48</p> <p>16 Q. -- a tremolite -- a bundle -- a tremolite</p> <p>17 bundle and making a determines as to whether it's</p> <p>18 asbestos-form or not; is that accurate?</p> <p>19 A. Well, I have to make -- I make a</p> <p>20 determination, does it meet the criteria for 09:49</p> <p>21 regulated tremolite asbestos and all the TEM</p> <p>22 protocols?</p> <p>23 And this particular one does because it</p> <p>24 has substantially parallel sides, it's greater</p> <p>25 than .5 microns in size, and it's greater -- and 09:49</p> <p style="text-align: right;">Page 348</p>	<p>1 If you look at the top, on the right-hand</p> <p>2 side, you can see that there is different</p> <p>3 structures there running down.</p> <p>4 Now, we are looking at a TEM, but this</p> <p>5 is a -- this is a very -- this is a thick bundle, 09:50</p> <p>6 so there's a lot of fibrils in there. And that's</p> <p>7 why you have -- in TEM, is why you have a 5-to-1</p> <p>8 aspect ratio, because a lot of times, you can't</p> <p>9 see through the bundle to get the individual</p> <p>10 fibrils like you do with PLM. 09:51</p> <p>11 I know there's experts out there that say,</p> <p>12 "Okay, well, this isn't 20-to-1, so it can't be</p> <p>13 asbestiform." Well, that's not how you look at</p> <p>14 it. If I were to take some of those fibrils and</p> <p>15 just measure them independently, I'd easily get 09:51</p> <p>16 over 20-to-1, like you would do that.</p> <p>17 But since you don't -- you can't see</p> <p>18 through a lot of these bundles, that's why they</p> <p>19 make it 5-to-1, versus the counting rules. At</p> <p>20 least in the appendix for the R-93, it has to be 09:51</p> <p>21 greater than 10-to-1 -- or 10-to-1 and greater.</p> <p>22 Q. I'm going to go down -- are you finished?</p> <p>23 Because I don't want to cut you off.</p> <p>24 A. Yes, I'm finally finished. No, I'm</p> <p>25 finished. 09:51</p> <p style="text-align: right;">Page 350</p>

<p>1 Q. So I'm going to go down. And what is 2 this -- what is this test here? 3 A. This is called -- depending if you 4 are old- school -- EDS, energy-dispersive 5 spectroscopy, or EDXA, energy-dispersive x-ray 09:52 6 analysis. 7 So you are looking at the inorganic 8 chemistry in this particular case, and what we 9 look for is the magnesium/silicon/calcium ratio, 10 about what you see there, which tremolite asbestos 09:52 11 is the only amphibole out there that I know -- or 12 any mineral out there that has that ratio of 13 magnesium, silicon, and calcium. 14 Q. Is it accurate that if you were doing this 15 EDS test -- it's easier for me to say, so I'm 09:52 16 going to use that -- if you were using this EDS 17 test on nonasbestos-form tremolite, you would get 18 the same result as you get -- what's appearing on 19 the screen? 20 A. Yes, there is no difference between the 09:52 21 two. What some people are calling 22 nonasbestos-form or cleavage fragments has the 23 exact same chemistry, the exact same crystalline 24 structure, and the exact same surface -- surface 25 energy. 09:53</p> <p style="text-align: right;">Page 351</p>	<p>1 A. Well, this is -- let me see what this one 2 is. 003? 3 Q. Yeah, this is -- 4 A. Let me just find it. 5 Q. This is Gary Godfrey's. 09:55 6 A. Well, it's easier for me just to find 003. 7 Is that S71303-003? Because I can't see 8 it. 9 Q. It's M71309-003-001. 10 A. Ah, I see. Let's see. Okay. 003... 09:55 11 Okay. 12 Q. All right. Can you do the same thing you 13 did with me before? Can you explain to me why you 14 believe this fiber, 003-001, is asbestos-form 15 tremolite? 09:56 16 A. One, we have parallel sides. We have -- 17 Q. And that's this right here, up and down; 18 right? 19 A. That's a single fiber. 20 Q. Okay. 09:56 21 A. It's got parallel sides. Doesn't show 22 any -- when we see cleavage fragments, they don't 23 have parallel sides. They're like pie -- you 24 know, a piece -- a slice out of a pie, et cetera. 25 And it's got an overall aspect ratio of 7 09:57</p> <p style="text-align: right;">Page 353</p>
<p>1 Q. What test is this? 2 A. This is just a -- it's called SAED, or 3 selected area electron diffraction, and alls we're 4 doing is looking to see if it has the range of a 5 typical amphibole tremolite diffraction pattern 09:53 6 for the spacing between the atomic layers. 7 So you take one -- one row of dots that 8 are kind of running at a, you know, 40-degree 9 angle, and that space between them is measured in 10 nanometers, and then it's checked to -- if it's 09:53 11 got the tremolite amphibole range. 12 Q. Would a nonasbestos-form particle 13 present -- of tremolite present in the same way if 14 the SAED test was used? 15 A. Yes. 09:54 16 Q. So I'm going to go down to -- what I've 17 attached to these are some additional fibers from 18 some -- they're not -- and you can see that 19 they're named here 003-001. They're actually from 20 a different bottle of Longs product. 09:54 21 But these are the pictures in which you've 22 identified as tremolite, so I just want to go 23 through these and have you identify why you 24 believe under these images that they show 25 asbestos-form tremolite. Okay? 09:54</p> <p style="text-align: right;">Page 352</p>	<p>1 to 1, I think it is, or, you know, 7.2 or .3 to 1. 2 And, of course, it has the same chemistry and the 3 same -- 4 Q. Right. 5 A. -- as -- 09:57 6 And, also, the tremolite we have found -- 7 I think it's seven structures total -- or eight 8 structures total; seven of them are bundles, and 9 we have one fiber -- that's regulated asbestos. 10 And if this is all coming -- you know, so 09:57 11 this shows it's coming out -- the mine source is 12 here -- same mine sources show that the majority 13 of what we're seeing is bundles. And bundles, by 14 definition, are asbestiform. 15 Q. What you're telling me is even though this 09:57 16 is a single fiber, it meets the definition for 17 regulated asbestos in any event? 18 A. Well, it's regulated asbestos. And if 19 it's asbestiform or not, I guess it depends on who 20 you ask. 09:58 21 Q. Well, I'm asking you. You say 22 asbestiform; right? 23 A. It's -- I said, in my opinion, this 24 fibrous structure here of tremolite is asbestiform 25 because if you go to the classic definition of 09:58</p> <p style="text-align: right;">Page 354</p>

<p>1 asbestiform, it's fibrous-like asbestos.</p> <p>2 Q. All right. Are you finished? I'm going</p> <p>3 to go down a little further.</p> <p>4 A. Yes, I'm finished. What's the next one?</p> <p>5 Q. Next one is -- this is 005, fiber 1. 09:58</p> <p>6 A. 005.</p> <p>7 Q. And on all of these, Doctor, I -- I agree</p> <p>8 that the SAED and the other analysis indicated</p> <p>9 that it was tremolite.</p> <p>10 A. Yeah, okay. 09:59</p> <p>11 So this is a fairly large bundle. Are</p> <p>12 we --</p> <p>13 Q. This is -- okay.</p> <p>14 A. 20-to-1. This is a fairly long bundle.</p> <p>15 It's got a length of 42.1 and a width of 2.2, 09:59</p> <p>16 ratio of 19.1.</p> <p>17 And I would have to be sitting at the</p> <p>18 microscope, but a 2.2, 42.1 -- it's got</p> <p>19 substantially parallel sides, but I would need to</p> <p>20 be sitting at the microscope to look at this, 10:00</p> <p>21 because you've got to get it in and out of focus</p> <p>22 to see the -- to see the edges more than I can see</p> <p>23 here. I can see that this picture is taken a</p> <p>24 little bit out of focus.</p> <p>25 Q. So it's my understanding, when you look at 10:00</p> <p style="text-align: right;">Page 355</p>	<p>1 analyst. He's been with me for a number of years.</p> <p>2 I have no doubt about his ability, but...</p> <p>3 So no buts. No, these are all</p> <p>4 asbestiform, in my opinion.</p> <p>5 Q. Okay. So my question to you, Dr. Longo, 10:02</p> <p>6 is: After your technicians provided their TEM</p> <p>7 analysis, did you go back and actually look at the</p> <p>8 particles under the microscope to confirm their</p> <p>9 finding?</p> <p>10 A. I do that from time to time. Did I do it 10:02</p> <p>11 here? It's -- if I had gotten deposed when these</p> <p>12 were first done, I could have told you that,</p> <p>13 either "yes" or "no," but I can't recall now.</p> <p>14 It's been too long. Because I'm always constantly</p> <p>15 being asked, "Is this asbestiform or not?" The 10:02</p> <p>16 fact that it is sitting here in this report, I</p> <p>17 would say yes.</p> <p>18 Q. So you routinely go back and re- -- look</p> <p>19 at the TEM particles that have been identified as</p> <p>20 asbestos? That's what you routinely do? 10:02</p> <p>21 A. Well, this -- you know, we're -- this is</p> <p>22 two different things. This meets all the</p> <p>23 definitions of regulated asbestos for all the</p> <p>24 different TEM protocols that there is out there.</p> <p>25 It's got the right chemistry, got the right 10:03</p> <p style="text-align: right;">Page 357</p>
<p>1 the report, that a woman that -- employed with you</p> <p>2 did the TEM analysis. Is that accurate?</p> <p>3 A. No. This was done by Jayme Callan. He's</p> <p>4 still here.</p> <p>5 Q. Oh, I'm sorry. I thought Jayme was a 10:00</p> <p>6 woman. I'm sorry. I apologize.</p> <p>7 A. He's sensitive --</p> <p>8 Q. Did you reconfirm his opinion that this</p> <p>9 was asbestos-form tremolite by looking under a</p> <p>10 microscope at the time the report was generated? 10:01</p> <p>11 A. No. I can see the parallel sides on this</p> <p>12 and the length of this. This is asbestiform. And</p> <p>13 I can see little areas that, you know, show me</p> <p>14 that there's bundles in there.</p> <p>15 But sitting here with this photograph and 10:01</p> <p>16 trying to show you where or not, I guess I can</p> <p>17 give it a try.</p> <p>18 On the right -- on the left-hand side,</p> <p>19 starting from the bottom and going up, on the top</p> <p>20 you can see how it's almost like a little shelf 10:01</p> <p>21 that goes in. That would be the first structure.</p> <p>22 But to go, "Okay, here's where this is,</p> <p>23 and here's where that is," I would need to sit at</p> <p>24 the scope and go more -- but, you know, this is a</p> <p>25 very -- very experienced SEM -- excuse me -- TEM 10:01</p> <p style="text-align: right;">Page 356</p>	<p>1 diffraction pattern. It's got the right size.</p> <p>2 What we're debating now is this definition</p> <p>3 of asbestiform. This is fibrous-like asbestos.</p> <p>4 It was classified as a bundle. So to me, you</p> <p>5 don't have to debate this whole asbestiform thing. 10:03</p> <p>6 And -- you know, and my opinion about this</p> <p>7 "It has to be 20 to 1, it has to be this, it has</p> <p>8 to be that" is, to me, it's just made up to make</p> <p>9 it nonasbestos.</p> <p>10 Q. Okay. But to determine whether something 10:03</p> <p>11 is an asbestos-form fiber, you are following the</p> <p>12 definitions that have been set out in the</p> <p>13 literature; are you not?</p> <p>14 A. Well, we have to go on what definitions</p> <p>15 are we talking about? What I am following is what 10:04</p> <p>16 the various government agencies, like the</p> <p>17 Environmental Protection Agency or the ASTM or the</p> <p>18 International Standards Organization -- what their</p> <p>19 definition is of asbestos, which is more</p> <p>20 restrictive than NIOSH's or OSHA's definition of 10:04</p> <p>21 asbestos.</p> <p>22 So you have to tell me what definitions</p> <p>23 are we talking about in the literature, because</p> <p>24 there's a myriad of them.</p> <p>25 Q. Well, I think you just answered the 10:04</p> <p style="text-align: right;">Page 358</p>

<p>1 question as to what standard you use.</p> <p>2 But let's move on, because I have to pass</p> <p>3 you to other people.</p> <p>4 A. Okay. That's fine.</p> <p>5 Q. This is another fiber, which is -- this is 10:04</p> <p>6 006. This is Rodney Fong's tremolite fiber. Once</p> <p>7 again, on the SAED test, you know, it met the</p> <p>8 definition of tremolite, so we are not debating</p> <p>9 that. Can you explain to me why you believe this</p> <p>10 is an asbestos-form tremolitic fiber? 10:05</p> <p>11 A. Well, if you start on the -- start on the</p> <p>12 right-hand side, you can see that there is a</p> <p>13 single -- that is about .4, maybe. And then right</p> <p>14 next to it, on the top, you've got a single --</p> <p>15 what I call a single structure going down. That's 10:05</p> <p>16 about .2. And that -- if you just took that</p> <p>17 one --</p> <p>18 And if you get to the other end, some</p> <p>19 people would think that's down to a point, but</p> <p>20 that's actually individual structures that make up 10:05</p> <p>21 that. You know, it's, like -- it's not a needle.</p> <p>22 At higher mag, you can actually see that it steps</p> <p>23 up.</p> <p>24 And if we were to take that single one</p> <p>25 going down the side, which is going to be 10:06</p> <p style="text-align: right;">Page 359</p>	<p>1 because it's fibrous-like asbestos.</p> <p>2 Q. And this is the final group of fibers.</p> <p>3 This is from Joann Scherich, her bottle, and it's</p> <p>4 marked 1309-008 and this is fiber 1.</p> <p>5 A. Oh, got three in here. 10:08</p> <p>6 Q. Yeah, there are three fibers.</p> <p>7 A. So we have three bundles. Again, you</p> <p>8 have -- you have -- at the very end, at the right,</p> <p>9 you can see some individual fibrils. This is .86,</p> <p>10 so I would say that is consistent. Again, a 10:08</p> <p>11 bundle. Regulated asbestos, tremolite. And</p> <p>12 even -- because it's a bundle, I don't think</p> <p>13 people argue that it's -- well, they probably</p> <p>14 do -- that this is, quote, asbestiform, unquote.</p> <p>15 Q. Okay. Are you finished, sir? 10:09</p> <p>16 A. Yes, sir.</p> <p>17 Q. I'm showing you a second fiber. Can you</p> <p>18 tell me in your book whether the picture of this</p> <p>19 fiber has the arrow that you see on the screen?</p> <p>20 A. Yes, it does. 10:09</p> <p>21 Q. Do you know why the individual that did</p> <p>22 this would have put an arrow on the screen?</p> <p>23 A. That's Jayme Callan. Yes, I know why.</p> <p>24 Q. Can you tell me --</p> <p>25 A. Sure. 10:09</p> <p style="text-align: right;">Page 361</p>
<p>1 approximately 6 microns, 7 microns divided by</p> <p>2 about .2 -- .10 would be 60; .2 would be 30 -- you</p> <p>3 get a 30-to-1 aspect ratio in the fiber.</p> <p>4 But this fiber -- you know, this bundle by</p> <p>5 itself gives us a 19.4 aspect ratio. 10:06</p> <p>6 Q. Have you articulated your opinion?</p> <p>7 A. Yes.</p> <p>8 Q. This is another fiber from 002 -- I</p> <p>9 mean -- I'm sorry -- from 006, which was the</p> <p>10 Rodney Fong bottle, but this is fiber 2. 10:06</p> <p>11 A. Well, this is -- this is a bundle, I</p> <p>12 think. Let me see what -- I would have called it</p> <p>13 a bundle. See if I am wrong.</p> <p>14 Nope. Bundle. Same thing. You've got --</p> <p>15 you've got parallel sides, and you -- at least on 10:07</p> <p>16 mine, I can see at the bottom of this, this is .8.</p> <p>17 Tremolite usually runs about .2 to .3 for single</p> <p>18 fibrils. And you can see some density difference</p> <p>19 going -- going across. And then you have a</p> <p>20 step-down on the other end and a 19.4 aspect 10:07</p> <p>21 ratio.</p> <p>22 I would call that -- it meets all the</p> <p>23 definitions for regulated asbestos for tremolite.</p> <p>24 And depending on whose definition you use for</p> <p>25 asbestiform -- I would say that's asbestiform 10:07</p> <p style="text-align: right;">Page 360</p>	<p>1 Q. -- please?</p> <p>2 A. Because if I didn't have that arrow on</p> <p>3 there, I would just want to make sure which of</p> <p>4 these two fibrous structures he was analyzing,</p> <p>5 that one -- 10:10</p> <p>6 Q. Okay.</p> <p>7 A. The one on top. So I will typically --</p> <p>8 this is a little bit extreme. I could have</p> <p>9 figured it out by the size. But he's, I think,</p> <p>10 just got a little paranoid that I was going to 10:10</p> <p>11 come back and say, "Which one is these?"</p> <p>12 Q. Okay. Can you explain to me why -- this</p> <p>13 is a bundle, in your opinion; is that correct?</p> <p>14 A. Yeah. It's a thick one. It's .9. But,</p> <p>15 again, it's -- I can see -- on the bottom 10:10</p> <p>16 left-hand corner, I can see little structure</p> <p>17 there. That signifies to me that there's some</p> <p>18 fibrils in this. But, again, we're dealing with</p> <p>19 the thickness of the -- of the structure.</p> <p>20 Q. Can you help me out -- I'm sorry. Go 10:10</p> <p>21 ahead. I didn't mean to cut you off.</p> <p>22 A. No, I'm done.</p> <p>23 Q. Go ahead.</p> <p>24 So you said in the bottom left-hand</p> <p>25 corner, and I'm a little confused. 10:11</p> <p style="text-align: right;">Page 362</p>

<p>1 A. I'm sorry. Bottom right-hand corner. 2 Q. Bottom right-hand corner? 3 A. Bottom right-hand corner. Right where 4 you've got the little hand, but just move it over 5 to the -- 10:11 6 Q. Yeah, okay. All right. 7 A. I misspoke. I apologize. 8 Q. No, no problem. 9 And this is fiber 3, same thing, from 10 -008. 10:11 11 A. Yes. 12 Q. Can you explain to why you find that 13 this -- what this is? Is this a bundle? Is this 14 a fiber? What is it? 15 A. This is a bundle. And you can actually 10:11 16 see -- on the top right-hand side, you can see 17 individual fibrils protruding from that. 18 And then on the bottom left-hand side, all 19 the way to the bottom on the left-hand side, you 20 can see bundle -- you can see individual 10:11 21 fibrils -- or bundle -- little bundles, depending 22 on the thickness, protruding from the -- 23 Q. Right here where my cursor is? 24 A. Yeah, right there. 25 Q. All right. So, like, right above the 1.9 10:11</p> <p style="text-align: right;">Page 363</p>	<p>1 and we're back on the record at 1:24 p.m. 2 EXAMINATION BY MR. RISING: 3 Q. Hi, Dr. Longo. How are you? 4 A. I'm fine, sir. How are you doing today? 5 Q. Good. We haven't met before. I'm Kevin 10:25 6 Rising. I will be representing Longs at trial. I 7 will probably see you in the Eagles trial. I'm 8 here today to ask questions on behalf of all the 9 retailers, so Longs, Lucky, and Safeway. Okay? 10 A. That's fine. 10:25 11 Q. And are you available for trial next week? 12 Are you going to -- are you planning to appear, 13 and we are going to meet you in person? 14 A. Yes, sir, I plan on appearing. Typically, 15 if I can't appear, it would have to be something 10:25 16 serious has happened to me, which would be bad for 17 everybody, I think. 18 Q. And so what -- you planning to appear on 19 Wednesday? When are you traveling out to 20 California? 10:25 21 A. Well, it's always hard to predict because 22 every day seems to be a new issue about when, 23 actually, the -- when they need me; you know, how 24 long does it take to put the jury in the box, so 25 to speak. 10:26</p> <p style="text-align: right;">Page 365</p>
<p>1 in the middle of the bundle, you see some fibers? 2 A. Yeah. I think they may be a little bigger 3 than the typical fibrils. They may be -- you 4 know, I can't quite see. 5 But if you go to the very top, that's 10:12 6 pretty close to .2, .3, and you know -- 1, 2, 3, 7 4, 5, 6, 7 -- that gets pretty close to what the 8 typical size or width of a tremolite fiber is. 9 MR. HINES: All right. I'm going to pass 10 you now. I appreciate the time, once again, to 10:12 11 speak with you, Dr. Longo. It's always enjoyable, 12 and -- 13 THE WITNESS: Good to see you. 14 MR. HINES: -- maybe I'll see you next 15 week. 10:12 16 MR. DUBIN: Should we take our next break 17 now, five minutes, since we are switching 18 examiners? 19 THE WITNESS: Yes, that would be great. 20 MR. DUBIN: I may call in on a different 10:13 21 device. 22 THE VIDEOGRAPHER: We are going off the 23 record at 1:13 p.m. 24 (Recess taken.) 25 THE VIDEOGRAPHER: This is Media Number 3, 10:24</p> <p style="text-align: right;">Page 364</p>	<p>1 My understanding is it could be sometime 2 from Wednesday to Friday -- 3 Q. Okay. 4 A. -- or the following Monday. I don't know. 5 Q. You're available any of those times? 10:26 6 A. Not usually. I have to start -- you know, 7 a lot of begging has to be done -- 8 Q. All right. Well, I look forward to seeing 9 you -- 10 Sorry, go ahead. Go ahead, Dr. Longo. 10:26 11 A. Yes. Typically not, because you set these 12 dates aside, and then other dates fill up, as you 13 know, and then you have to start moving chess 14 pieces around. 15 But right now, I was able to move things 10:26 16 around to have Wednesday through Friday. So I 17 don't know about next week. 18 Q. Okay. So maybe we'll see each other next 19 week in suits. 20 A. May be. 10:27 21 Q. Okay. I'm going to focus on the store 22 brand exposures, but I want to just kind of, just 23 to set the table here, make sure what you are not 24 offering opinions regarding. Okay? 25 A. Sure. 10:27</p> <p style="text-align: right;">Page 366</p>

<p>1 Q. You haven't done any calculations for the 2 number of containers of Johnson's Baby Powder 3 purchased at any individual retailer; correct? 4 A. Correct. 5 Q. And you're not going to be offering any 10:27 6 opinions regarding the conduct of any retailers in 7 the case, including Longs, Lucky, or Safeway; 8 right? 9 A. I don't have any opinions about the 10 conduct, meaning, like, state of the art, when any 10:27 11 of these retailers knew -- knew about the hazards 12 of asbestos, who knew what when about the hazard 13 of asbestos. That's not my area. 14 I don't talk about warnings, so I am not 15 going to be testifying about any warnings that the 10:27 16 retailers -- that should have put on the bottles 17 or not or should they have warned anybody about 18 the potential of asbestos -- of the hazards of 19 asbestos. 20 That's not something I testify about, so I 10:28 21 have no intention of saying anything like that for 22 any of the retailers. 23 Q. Okay. And you're not a geologist; is that 24 correct? 25 A. I don't have a degree in geology, that's 10:28 Page 367</p>	<p>1 different sizes, the flotation, you know, when the 2 different -- you know, the fragrance gets added, 3 et cetera, you know, it's pretty straightforward. 4 Or are you meaning the different sources, 5 about what's the potential for being -- having 10:29 6 asbestos in it from the different locations of the 7 cosmetic talc mines in this country as well as 8 China as well as France as well as Italy? 9 Q. Well, let me start from -- let me start 10 from this: You've tested cosmetic talc from a 10:30 11 number of sources; correct? 12 A. From all of them. 13 Q. Have you visited any of them? 14 A. The only one I visited was the Death 15 Valley mines out in California and only took 10:30 16 samples from one of the mines that was out of the 17 national park area, the Eclipse mine. 18 Q. Have you ever seen -- I know some -- your 19 opinions are -- I believe you now hold the opinion 20 that there's chrysotile asbestos in all mines -- 10:30 21 all talc mines in northern -- North America; is 22 that correct? 23 A. There is some form of asbestos in all the 24 mines in North America. 25 If you're dealing with Montana, it has a 10:31 Page 369</p>
<p>1 correct. 2 Q. Okay. You're not an expert in the supply 3 chain for cosmetic talc, are you? 4 A. No. I don't know what an expert is in 5 that area, other than if you just look at the 10:28 6 shipping documents from start to finish. But I 7 haven't done that. 8 Q. You've never worked for a talc 9 manufacturer or supplier; right? 10 A. A talc -- I have never been -- I have -- 10:28 11 strike that. 12 I have not been retained by any talcum 13 powder manufacturer, distributor, or defense firm 14 defending a talcum powder manufacturer or product. 15 Q. My question was a little vague there. 10:29 16 You've never been employed as an employee 17 of a talc manufacturer or supplier; right? 18 A. That would have been an easier one to 19 answer. No. 20 Q. Yeah. 10:29 21 And you're not an expert on talc mining; 22 correct? 23 A. You will have to define that a little bit. 24 Mining, like digging it out of the ground, 25 putting it through the mills, getting the 10:29 Page 368</p>	<p>1 significant amount -- it has chrysotile in it. 2 If you're dealing with Vanderbilt, I've 3 never analyzed that for chrysotile, but certainly 4 I don't think there's a dispute anymore that it 5 has anthophyllite and tremolite. And I don't 10:31 6 think any manufacturers use Vanderbilt mine, thank 7 goodness. 8 You're dealing with Vermont, yes, that has 9 chrysotile in it, as well as the amphiboles. 10 And North Carolina, same. 10:31 11 Alabama, I'm not sure that's one that's 12 been used a lot, but we've analyzed samples in 13 Alabama that does have amphibole in it. 14 Vermont, Alabama, North Carolina, Montana, 15 Death Valley, Vanderbilt. 10:32 16 Trying to think of others. If I'm 17 missing any -- 18 Q. Sorry. Let me just focus you on -- 19 because I'm not here to discuss all mines. I'm 20 just trying to get a general sense. 10:32 21 A. Sure. 22 Q. Do you have any opinions on specific mines 23 related to Safeway or Longs in this case? 24 A. Safeway -- Safeway and Longs, if they used 25 any of these mines that I've been naming off, 10:32 Page 370</p>

<p>1 Chinese, Italian, or French, plus everything in 2 North America, they're going to have asbestos in 3 it. 4 Q. Let's get into that in a little while. 5 Have you produced all the materials you've 10:32 6 relying opinions you're relying on for Safeway and 7 Longs? 8 MR. REID: Vague and ambiguous as to 9 "produced" and assumes facts. 10 THE WITNESS: I mean, I've produced 10:32 11 everything that -- you know, analysis that I've 12 done, and I have opinions. That's hard to produce 13 on them. We've analyzed over 500 -- I think it's 14 close to 500 cosmetic talc samples that have come, 15 as well as we've now analyzed a few what I would 10:33 16 call pharmaceutical grade used in talc 17 pleurodesis. And those came from China and the 18 French mine. 19 BY MR. RISING: 20 Q. I'll come back to that. 10:33 21 Let me just start with Safeway because I 22 don't know what your opinions are with respect to 23 Safeway. 24 What are your opinions with respect to 25 Safeway in this case? 10:33</p> <p style="text-align: right;">Page 371</p>	<p>1 talc mines have some level of asbestos as an 2 accessory mineral. 3 Q. So let me try to understand this. 4 Is your opinion that if any retailer sold 5 talc at any point in time, then that talc was 10:35 6 contaminated with asbestos? 7 A. I don't like to use the word 8 "contaminated." It's an accessory mineral that's 9 found in these talc mines. You know, every talc 10 mine you look at, you can find aluminum silicates, 10:35 11 you can find micas, you can find calcium 12 carbonate. 13 It's where you -- where you have to have a 14 specific chemistry, I'm not sure you can find the 15 amphibole asbestos in every mine. 10:36 16 You know, there may be detection -- there 17 may be issues on there on some of the mines, maybe 18 Montana, but certainly others have found amphibole 19 asbestos in Montana. So you can have very low 20 amphibole content, and we have a lot of nondetects 10:36 21 in mines like -- for amphibole asbestos, like the 22 Montana mines. 23 But the answer to your question is yes, 24 it's my opinion, if you have ever used a product 25 that had some sort of talc in it, it's going to 10:36</p> <p style="text-align: right;">Page 373</p>
<p>1 A. My opinions are that any of the talcum 2 powder products that Safeway sold, if it came from 3 any of the mines that I've just discussed which is 4 essentially all of them, it's going to have some 5 level of asbestos in it. That's my opinion. 10:33 6 Q. At any time? 7 A. I'm sorry? 8 Q. At any time? 9 A. Any time they used any of these mines, 10 yes. 10:34 11 Q. What's the basis of that opinion? 12 A. That we have analyzed powder -- we've 13 analyzed samples from all these mines, starting 14 with China, Chinese, and working our way across, 15 going to Death Valley, going to Montana, going to 10:34 16 Vermont, going to North Carolina, Alabama. I'm 17 not going to go into the -- into the industrial 18 talc ones. 19 And then heading over to Europe, you've 20 got the French mine as well as the Italian mine. 10:34 21 And I don't think I'm missing any. All of those 22 we have found asbestos in it. 23 Now, you can't rule out finding one here 24 or there that is below the detection limit. But 25 it's been my opinion for a while that all these 10:35</p> <p style="text-align: right;">Page 372</p>	<p>1 have asbestos in it. 2 Q. Do you have an opinion on what the amount 3 of asbestos would be? 4 A. On the amphibole side, you know, our 5 detection limit is 0.0001. If we find amphiboles, 10:37 6 it's got to be at least that much. 7 On the chrysotile side, our detection 8 limit is, I think, 4 zeros and a 9. 0.00009 might 9 be the lowest we have found so far. I have to 10 check. 10:37 11 So I can't tell you what the range is 12 going to be in any particular mine unless we do 13 the -- you know, we have to go back and look at 14 all the analyses. It's just it's going to be 15 there, and if it's chrysotile, we'll be able to 10:37 16 find it so far. 17 Q. Is it your opinion that chrysotile -- and 18 I want to just focus on chrysotile and not the 19 amphibole -- but that chrysotile is present in 20 every talc mine basically in the world? 10:38 21 A. I don't know about the world. But seems 22 like it. At least every talc mine that I know of 23 that has been used for cosmetic talcs in this 24 country, all those do. 25 Q. And the basis for that opinion is because 10:38</p> <p style="text-align: right;">Page 374</p>

<p>1 you've tested bottles of cosmetic talc or cosmetic 2 talc products that you understand come from those 3 mines? 4 A. Well, yes, as well as retains that come 5 from the mines. I think the Chinese mine, I think 10:38 6 we have, you know, close to a hundred different 7 samples that are positive for chrysotile. 8 In the Vermont mines, Johnson & Johnson 9 was finding chrysotile in it back in 1973 with 10 their double density CSM method. We've only done 10:39 11 a few more -- few more samples on that one. 12 Montana, a number of different people 13 have -- you know, I think Pfizer has found 14 chrysotile. Johns-Manville's Research Center has 15 found chrysotile in it. Others have found it. So 10:39 16 it's just not me. 17 Q. Do you have an opinion in this case to the 18 specific mine that any Safeway products came from? 19 A. I don't know if Safeway has given that 20 information up. But again, looking at it, I would 10:39 21 say Montana could be one that might be, but -- or 22 it could be Chinese, it could be Montana. But I'm 23 not saying that with any reasonable degree of 24 scientific certainty, since Safeway -- somebody 25 knows where they came from within that 10:40 Page 375</p>	<p>1 we have now -- we've refined this method, and 2 every time we've looked for it, we have found it. 3 Q. And you're finding it in very small 4 amounts; right? 5 A. Yes, sir. It's a trace level. It's 10:41 6 not -- certainly nothing near what you would see 7 in a chrysotile-added product. 8 Q. Do you have an understanding of how -- how 9 the chrysotile presents in the mines? 10 A. Presents. I guess I don't understand. 10:41 11 Q. Yeah, so these mines -- let's take the 12 Montana mine, right. Is it your understanding 13 these are open-pit mines in Montana? 14 A. Yes, sir. 15 Q. And it's my understanding -- let's see if 10:42 16 we share the same understanding -- that chrysotile 17 can form -- when it forms, it forms in veins? 18 A. It can. But at these concentrations, I 19 don't know how big the veins are, you know, where 20 they're located in when they're digging it out or 10:42 21 blasting. 22 And because of the size of what we're 23 seeing after the milling and pretty much seeing 24 similar sizes that I can't, you know -- or the 25 beneficiation process. So how it presents itself, 10:42 Page 377</p>
<p>1 organization or where it had been bottled for them 2 or manufactured. 3 But whatever it is in North America, as 4 well as Chinese, as well as Italian, as well as 5 French, it's going to have chrysotile in it. 10:40 6 Q. And let me -- I want to see if I can 7 short-circuit this because I have limited time. 8 But I understand your opinion in 9 general -- and this wouldn't be limited to 10 Safeway, it would be any store selling any 10:40 11 cosmetic talc product at any time, that cosmetic 12 talc product has chrysotile asbestos in it at at 13 least -- you could find it at least down to 14 0.00009? 15 A. I think so. I think we've gotten it down 10:40 16 to that low. But I'm not saying we're going to 17 find it every time. It depends what else is in 18 the sample. 19 You know, I think we analyzed a sample 20 recently that the majority of it was baking soda 10:41 21 and starch and talc. But it was a small amount of 22 talc. I'm not sure we found chrysotile in that 23 one or not. 24 I'm just saying all these mines have some 25 concentration of chrysotile in it, and every time 10:41 Page 376</p>	<p>1 I don't know. 2 Q. Well, do you have an opinion -- do you 3 have an opinion as to why you're not seeing 4 variation -- for example, I assume you would agree 5 that as you're mining, you would hit potential -- 10:43 6 sometimes there would be less chrysotile; 7 sometimes there would be more. 8 Would you agree with that? 9 A. It would be hard for me, at what the 10 concentrations we're seeing, how they would even 10:43 11 identify it. 12 You know, we're not talking about a 13 tremolitic area that may have, you know, different 14 color to it where the supposed -- you know, we can 15 go through and pick out all the tremolite. I've 10:43 16 never read where they've been able to say, okay, 17 here is where chrysotile is, and we better -- we 18 better not dig here, or this is where aluminum 19 silicates are, we better not dig here. 20 So it's not -- you know, I'm not here to 10:43 21 explain it. I'm just here to say what we found 22 and others have found, say, like, for Montana. 23 Q. My question to you, Dr. Longo, and maybe 24 you don't have an opinion on it, is just, do you 25 have an explanation for why, on occasion when 10:44 Page 378</p>

<p>1 you're testing this, you're not finding chrysotile 2 at .1 percent or even -- or higher, variation 3 where it was actually in a higher concentration? 4 Do you not have an opinion as to that? 5 A. I don't think them just digging in one 10:44 6 spot and then when they put it -- you know, 7 they're digging in a large area, then they're 8 sending it through the mill, and then their 9 flotation. There may be a number of reasons, you 10 know, diluted, that's not all -- I've never found 10:44 11 one as high as .1 or 0.1 in any of these. 12 Q. It's -- it's a rock, right, so there will 13 be rocks, and it's harder than talc. 14 Would you agree with that? 15 A. The serpentine, sure. 10:45 16 Q. And I guess what I'm trying to figure out, 17 Dr. Longo, and you just may not have an opinion 18 about it, do you know whether or not it's 19 geologically possible that chrysotile exists in 20 very small amounts evenly dispersed throughout the 10:45 21 entire -- everywhere that there's talc? 22 A. Well, I'm not having any opinion that it's 23 evenly dispersed because you're not taking -- this 24 material is putting it all together from different 25 areas, I think. 10:45</p> <p style="text-align: right;">Page 379</p>	<p>1 amounts because of everything else. It's like 2 when you find accessory minerals in chrysotile, 3 you'll find tremolite. Well, the tremolite is 4 presented in .01 to .001 percent. You don't see 5 all chrysotile because it's an accessory mineral 10:47 6 in lower concentrations. 7 Q. Is that an opinion that you're offering, 8 or is that -- 9 A. Yes, that's an opinion based on the 10 analysis that we do. 10:47 11 Q. Okay. So you're coming up with an 12 explanation for why you're finding it in trace 13 amounts? 14 A. It's not coming up with an explanation. 15 I'm just looking at the facts, that we're seeing 10:47 16 these same concentrations over and over and over 17 and over, these same ranges. 18 Because it's trace levels, I'm not sure 19 why we should be finding it at higher 20 concentrations. 10:47 21 Q. Mr. Stewart represented to Judge Lee, last 22 week when I was talking about having to take your 23 deposition, that your opinions were all -- 24 regarding Safeway were all contained in what's 25 been marked here before as Exhibit 23. 10:48</p> <p style="text-align: right;">Page 381</p>
<p>1 And geologically, you know, that's not my 2 area of geology. Others need to address that. 3 And it depends on who you ask. If you ask Alan 4 Segrave, he says there's no conditions available 5 to even form chrysotile. 10:45 6 Q. I understand that, Dr. Longo. 7 You just don't have an opinion as to why 8 you're only finding it in very small amounts; is 9 that correct? 10 A. Because it's being presented in very small 10:46 11 amounts. 12 Q. Understood. But you don't have an opinion 13 geologically as to why that is or within the 14 mining system why that is; correct? 15 A. Because I think the concentration of talc 10:46 16 of either 90 or 95 percent is coming -- I don't 17 think they dig up one ton in just one area. And 18 then it goes all through a milling process, and I 19 think they get mixed. It could be a myriad of 20 reasons. I've just not researched that. 10:46 21 Q. I want to make sure. 22 You're saying "I think," but you actually 23 don't know and don't have an opinion; right? 24 A. Well, you know, just off the top of my 25 head, it's not presented in other than trace 10:46</p> <p style="text-align: right;">Page 380</p>	<p>1 A. What exhibit is that? 2 Q. It's a declaration, and I'll show it to 3 you. But it was in opposition to Safeway's motion 4 for summary judgment. 5 Do you recall being shown that? 10:48 6 A. I do a lot of these, so not necessarily I 7 remember any specific one. 8 And how long ago was this done? 9 Q. I'm going to share with you right now. 10 A. Okay. Great. 10:48 11 Q. Can you see that? I'll go to the first 12 page. This was shown to you in this deposition, I 13 think, in the last -- either the first -- maybe 14 the first volume, first day of your deposition in 15 this case. 10:49 16 Are you familiar with this? Do you have a 17 copy of this there with you? 18 A. Let me look. I might. 19 I don't want to waste -- waste your-all's 20 time by looking for it if you would be happy to 10:49 21 show me what my declaration says. 22 Q. I'm trying to, but for some reason my -- 23 my copy, I think, is -- my PDF here is not 24 cooperating. 25 A. That, I can't help you with. 10:50</p> <p style="text-align: right;">Page 382</p>

<p>1 Q. Let me see if I can get -- give me just a 2 second here.</p> <p>3 Is that the case? Do you know whether or 4 not that declaration contains your opinions in 5 this case? 10:50</p> <p>6 MR. REID: Lacks foundation to the extent 7 that he --</p> <p>8 THE WITNESS: I mean, I probably -- 9 (Reporter clarification.)</p> <p>10 MR. REID: So objection to the -- lacks 10:50 11 foundation to the extent that Dr. Longo has not 12 been able to review or refresh his recollection 13 regarding what's even contained in the declaration 14 that he signed, which I believe, I think was about 15 six months ago-ish. 10:50</p> <p>16 MR. RISING: Let me see. I'm just having 17 trouble with this particular PDF.</p> <p>18 Give me just a second here.</p> <p>19 THE WITNESS: Sure. No problem.</p> <p>20 MR. RISING: Actually, let me just move to 10:51 21 another topic, and I'll see if I can get a better 22 copy of that that's actually coming up here.</p> <p>23 BY MR. RISING:</p> <p>24 Q. Let me see if I can refresh your 25 recollection without -- well, first of all, 10:51</p> <p style="text-align: right;">Page 383</p>	<p>1 Exhibit 4 to the deposition earlier. It's your 2 Marlin Eagles deposition notes report.</p> <p>3 Do you recall this?</p> <p>4 A. Yes.</p> <p>5 Q. I just want to ask you a few things about 10:53 6 this so I can confirm. We'll start with page 2.</p> <p>7 A. Okay.</p> <p>8 Q. Here we have -- this is the talcum powder 9 exposure history?</p> <p>10 A. Yes, we do. 10:54</p> <p>11 Q. And just that first bullet point there, it 12 says:</p> <p>13 "From approximately 1950s to 2017, 14 Mr. Eagles stated that he used JBP, Longs, 15 Safeway, Assured, and Truly Fine talcum 10:54 16 powder products."</p> <p>17 Do you see this?</p> <p>18 A. Yes, I do.</p> <p>19 Q. And are those the only talcum powder 20 products that you're providing an opinion on in 10:54 21 this case?</p> <p>22 A. I think he had some unnamed ones. But 23 these would -- these would be the only ones that I 24 know about.</p> <p>25 Q. Are you -- you tested Johnson's Baby 10:55</p> <p style="text-align: right;">Page 385</p>
<p>1 Dr. Longo, you don't have that declaration sitting 2 there with you today; right?</p> <p>3 A. I don't have it sitting in front of me.</p> <p>4 Q. I'll represent to you that it wasn't 5 produced in your file or in your reliance 10:52 6 materials. So if it wasn't there, do you know 7 whether or not it -- it contains your -- you 8 didn't review it to prepare to provide your 9 opinions to me today, did you?</p> <p>10 A. No. I didn't -- I just looked through 10:52 11 everything, and I didn't see it.</p> <p>12 Q. Okay. And you're prepared to provide your 13 opinions to me, is that right, from your files?</p> <p>14 A. Yes. And I've been trying, you know, my 15 best to do that. 10:52</p> <p>16 Q. And have you given me your opinion with 17 respect to Safeway so far?</p> <p>18 A. Yes.</p> <p>19 Q. Do you have any further opinions that you 20 intend to offer with respect to Safeway? 10:52</p> <p>21 A. No, sir.</p> <p>22 Q. I want to show you -- let me share this.</p> <p>23 Do you recognize this?</p> <p>24 A. It looks like my report.</p> <p>25 Q. This is Exhibit 4. It was marked as 10:53</p> <p style="text-align: right;">Page 384</p>	<p>1 Powder; correct?</p> <p>2 A. We have.</p> <p>3 Q. And you've tested Longs Baby Powder; 4 correct?</p> <p>5 A. We have. 10:55</p> <p>6 Q. But you haven't tested any Safeway baby 7 powder; right?</p> <p>8 A. The -- no, I don't believe so. Just 9 trying to remember -- yeah. The Equate, I think 10 that was Safeway's. But that was a -- a 10:55 11 starch-containing one.</p> <p>12 Q. You haven't tested any Truly Fine; right?</p> <p>13 A. No, sir, I haven't.</p> <p>14 Q. And you did test Assured; is that correct?</p> <p>15 A. Assured, I think so. 10:56</p> <p>16 Q. You tested that with -- you tested Assured 17 and Equate together?</p> <p>18 A. Yes.</p> <p>19 Q. And do you have an understanding of who 20 manufactures Assured? 10:56</p> <p>21 A. Can't quite make it out on the -- on the 22 back of the Assured.</p> <p>23 Q. And I'll come to that, but if you take a 24 look, and I think it's around page 75 of your 25 report, it's the picture of -- Greenbrier 10:57</p> <p style="text-align: right;">Page 386</p>

<p>1 International is the distributor?</p> <p>2 A. Yes, that's correct, that's the</p> <p>3 distributor.</p> <p>4 (Reporter clarification.)</p> <p>5 MR. RISING: Greenbrier, 10:57</p> <p>6 G-r-e-e-n-b-r-i-e-r, International.</p> <p>7 BY MR. RISING:</p> <p>8 Q. Do you understand -- do you have an</p> <p>9 opinion as to whether that has any relationship</p> <p>10 with Safeway? 10:57</p> <p>11 A. I don't have an opinion one way or the</p> <p>12 other.</p> <p>13 Q. Can you look at your depo notes at page 9.</p> <p>14 Do you have that in front of you?</p> <p>15 A. My depo notice? 10:58</p> <p>16 Q. Your depo notice, which is Exhibit 4.</p> <p>17 A. Yes, I have it in front of me.</p> <p>18 Q. Just to make sure, you went through and</p> <p>19 reviewed all of Marlin Eagles' and -- Mr. and</p> <p>20 Mrs. Eagles' depositions, and you pulled out and 10:58</p> <p>21 noted here all of the -- all of the testimony that</p> <p>22 you're relying on to form your opinions; correct?</p> <p>23 A. Correct.</p> <p>24 Q. So if you're relying on it, it's here in</p> <p>25 Exhibit 4; correct? 10:58</p> <p style="text-align: right;">Page 387</p>	<p>1 France.</p> <p>2 BY MR. RISING:</p> <p>3 Q. I understand that. But I just want to</p> <p>4 make clear, you haven't tested any Safeway baby</p> <p>5 powder; correct? 11:00</p> <p>6 A. I mean, I don't -- you know, I don't know</p> <p>7 who Safeway -- I may not, something that said</p> <p>8 "Safeway" on it. I don't believe so. I haven't</p> <p>9 tested anything that said "Safeway" on it.</p> <p>10 Q. You haven't tested anything that said 11:00</p> <p>11 "Truly Fine" on it; correct?</p> <p>12 A. That's correct.</p> <p>13 Q. Have you tested anything that you</p> <p>14 understand was a Safeway store-branded product?</p> <p>15 A. If it didn't say -- if it said "Safeway" 11:01</p> <p>16 on it anywhere, I haven't tasted it -- of course I</p> <p>17 haven't tasted it. I also haven't tested it as</p> <p>18 well as not tasted it.</p> <p>19 Q. Okay. I want -- if you look at page 9 of</p> <p>20 your deposition notes, Exhibit 4, the third 11:01</p> <p>21 paragraph up from the bottom.</p> <p>22 Do you see that -- it starts with, "Of the</p> <p>23 three baby powder products."</p> <p>24 A. Uh-huh, yes, sir.</p> <p>25 Q. It says: 11:01</p> <p style="text-align: right;">Page 389</p>
<p>1 A. Well, I'm relying on that and also the --</p> <p>2 the notes that I took --</p> <p>3 Q. You're talking about Exhibit 6 -- sorry --</p> <p>4 Exhibit 6, your October 11, 2023 --</p> <p>5 A. Yes, that's correct. 10:59</p> <p>6 Q. -- exposure notes?</p> <p>7 Okay. So for your opinions for the</p> <p>8 retailers, I just want to make sure. Let's focus</p> <p>9 on Safeway.</p> <p>10 The only -- the only documents you have 10:59</p> <p>11 that you're relying on for Safeway for any opinion</p> <p>12 with respect to Safeway are Exhibit 4, your</p> <p>13 deposition notes, and Exhibit 6?</p> <p>14 MR. REID: Overbroad.</p> <p>15 THE WITNESS: Well, I don't have any 10:59</p> <p>16 opinions about Safeway. What I have opinions</p> <p>17 about is any Safeway talcum powder products that</p> <p>18 they sold over the years. But Safeway itself is</p> <p>19 immaterial to me. It's the talcum powder products</p> <p>20 they sold and the opinions that I have generated 11:00</p> <p>21 about that has to do with the fact that for five</p> <p>22 and a half years, this is basically all the</p> <p>23 research that I've done and the analysis on the</p> <p>24 various mine sources from around the country. And</p> <p>25 this typically used from both China, Italy, and 11:00</p> <p style="text-align: right;">Page 388</p>	<p>1 "Of the three baby powder products,</p> <p>2 it is my opinion that Mr. Eagles used</p> <p>3 Johnson's Baby Powder (JBP) the most, 1955</p> <p>4 to 2017, followed by the Longs and Safeway</p> <p>5 baby powder products." 11:01</p> <p>6 And then you have in parentheses there:</p> <p>7 "1950s, 1960s to 1980s or 1990s."</p> <p>8 Correct?</p> <p>9 A. Correct.</p> <p>10 Q. I just want to break that out as between 11:02</p> <p>11 Longs and Safeway.</p> <p>12 So if you turn to page 4 of your notes.</p> <p>13 See that bullet point there?</p> <p>14 It says:</p> <p>15 "Mr. Eagles stated the first year 11:02</p> <p>16 during which he first purchased Longs Baby</p> <p>17 Powder was sometime around the late '60s</p> <p>18 until the '80s."</p> <p>19 A. Yes.</p> <p>20 Q. So if we go back to page 9 of your notes, 11:02</p> <p>21 when you say, "followed by Longs and Safeway baby</p> <p>22 powder," the Longs is 1960s to 1980s; correct?</p> <p>23 A. In that area, yes.</p> <p>24 Q. And that's the time period that you</p> <p>25 understand? 11:03</p> <p style="text-align: right;">Page 390</p>

<p>1 A. Yes.</p> <p>2 Q. And you're limiting your opinions in this</p> <p>3 case to that time period?</p> <p>4 A. I'm limiting my opinions to, you know,</p> <p>5 what Mr. Eagles, and I think his wife, too, what 11:03</p> <p>6 they stated when they -- when they -- when he used</p> <p>7 it.</p> <p>8 But it wasn't -- it was also using</p> <p>9 Johnson's Baby Powder at the same time. I mean,</p> <p>10 this is sort of like a mix and match. 11:03</p> <p>11 Q. I understand. I just want to focus on the</p> <p>12 store brand, the Longs baby powder. But your</p> <p>13 understanding for any opinions that you're</p> <p>14 offering for this case is that Mr. Eagles -- and</p> <p>15 you got this from his deposition testimony; 11:03</p> <p>16 correct?</p> <p>17 A. Correct.</p> <p>18 Q. And he was questioned over the course of,</p> <p>19 I think, five-plus days?</p> <p>20 A. Yes. It would be five-plus since it was 11:03</p> <p>21 eight different days.</p> <p>22 Q. Sorry. So over the course of eight</p> <p>23 different days, he was questioned at length, and</p> <p>24 you pulled from his testimony that he used Longs</p> <p>25 Baby Powder from 1960s ending in the 1980s; 11:04</p> <p style="text-align: right;">Page 391</p>	<p>1 Longs and baby -- Longs and Safeway baby powder,</p> <p>2 and you kind of combined them together. So I'm</p> <p>3 trying to separate out the two.</p> <p>4 So it looks like, from the information</p> <p>5 that you have, would you agree that Longs is 11:05</p> <p>6 limited to 1960s to 1980s and Safeway is 1950s to</p> <p>7 potentially the 1980s or 1990s?</p> <p>8 A. I would agree.</p> <p>9 Q. What do you do when you have something</p> <p>10 that's sort of broad and vague as that, you know, 11:06</p> <p>11 1980s or 1990s, how do resolve that in forming</p> <p>12 your expert opinions?</p> <p>13 MR. REID: Incomplete hypothetical.</p> <p>14 Assumes facts. Overbroad.</p> <p>15 THE WITNESS: I don't need to. I'm not 11:06</p> <p>16 the trier of fact here. And I wasn't -- I didn't</p> <p>17 have enough information on that. Johnson's Baby</p> <p>18 Powder was the most used. I had to get more</p> <p>19 information about that.</p> <p>20 But the Safeway and Longs, it's unclear 11:06</p> <p>21 exactly how much, and I guess maybe that can come</p> <p>22 out in the testimony by Mr. Eagles.</p> <p>23 So I wasn't able to do a calculation on</p> <p>24 the Longs and the Safeway because it was</p> <p>25 intermixed with along the Johnson & Johnson. 11:06</p> <p style="text-align: right;">Page 393</p>
<p>1 correct?</p> <p>2 A. Correct.</p> <p>3 Q. And then if you turn to page 3.</p> <p>4 A. Yes, sir.</p> <p>5 Q. And we kind of have to -- for Safeway baby 11:04</p> <p>6 powder, I think, if you look at the two bottom,</p> <p>7 the only dates we have for his use of Safeway baby</p> <p>8 powder would be the two bottom bullet points under</p> <p>9 the heading "Safeway Baby Powder."</p> <p>10 Do you see that? 11:04</p> <p>11 A. Correct.</p> <p>12 Q. So that would indicate 1950s, and then the</p> <p>13 latest date there is the 1980s or 1990s?</p> <p>14 A. Correct.</p> <p>15 Q. So when you said -- in the parenthetical 11:05</p> <p>16 on page 9, when you say that Safeway is from the</p> <p>17 1950s to possibly the 1990s?</p> <p>18 A. Well, if you go back to page 3, the second</p> <p>19 sentence, he's given a store that he said that he</p> <p>20 bought the Safeway product at in the mid-1970s, 11:05</p> <p>21 and then the last decade might have been 1980s or</p> <p>22 1990s.</p> <p>23 Then you moved me to what, page 9?</p> <p>24 Q. Yeah, to page 9. I'm just -- you have a</p> <p>25 time period that you're talking about the use of 11:05</p> <p style="text-align: right;">Page 392</p>	<p>1 Then, of course, you have Mrs. Eagles</p> <p>2 stating that when she bought it, she never</p> <p>3 purchase anything but Johnson's Baby Powder. So I</p> <p>4 can't resolve that issue on which was more or</p> <p>5 less. 11:07</p> <p>6 BY MR. RISING:</p> <p>7 Q. You don't have any opinion as to how many</p> <p>8 bottles of Longs Baby Powder Mr. Eagles purchased</p> <p>9 and used from the 1960s to the 1980s; correct?</p> <p>10 A. Other than it was less than the Johnson's 11:07</p> <p>11 Baby Powder, no.</p> <p>12 Q. Okay. And other than it was less than the</p> <p>13 Johnson's Baby Powder, you don't have any opinion</p> <p>14 on the number of bottles of Safeway baby powder</p> <p>15 that Mr. Eagles purchased and used from 1950s to 11:07</p> <p>16 the 1980s or the 1990s; correct?</p> <p>17 A. I'm just seeing what -- I forgot what I</p> <p>18 may have asked him when I visited him.</p> <p>19 Q. And you're looking at Exhibit 6, your</p> <p>20 exposure notes? 11:08</p> <p>21 A. I would have to -- it wasn't -- I don't</p> <p>22 think there was any -- I wasn't able to determine</p> <p>23 how many containers, either Longs or Safeway,</p> <p>24 other than it was less than the Johnson & Johnson.</p> <p>25 Q. Go to -- see if I can actually show you a 11:08</p> <p style="text-align: right;">Page 394</p>

<p>1 document now.</p> <p>2 Dr. Longo, sharing my screen.</p> <p>3 Okay. This is the -- let me go to the</p> <p>4 first page.</p> <p>5 MR. RISING: We'll mark this as next in 11:09</p> <p>6 order, Early, Exhibit 43.</p> <p>7 (Whereupon, Defendants' Exhibit 43 was</p> <p>8 marked for identification.)</p> <p>9 BY MR. RISING:</p> <p>10 Q. And you have that there? 11:09</p> <p>11 A. I do.</p> <p>12 Q. And this is MAS Project M71719, Talcum</p> <p>13 Powder Analysis, Marlin Eagles?</p> <p>14 A. Yes, sir.</p> <p>15 Q. And you don't -- you don't have any 11:09</p> <p>16 opinion on who the manufacturer of the Assured is?</p> <p>17 A. No, sir. It's really immaterial to me who</p> <p>18 the manufacturer is. This was material that was</p> <p>19 sent to me, so we analyzed it.</p> <p>20 Q. Here, we have -- I think it's a little bit 11:10</p> <p>21 difficult, but I think Greenbrier International,</p> <p>22 Incorporated.</p> <p>23 Do you see that --</p> <p>24 A. Yes.</p> <p>25 Q. -- where my cursor -- 11:10</p> <p style="text-align: right;">Page 395</p>	<p>1 right in front of me -- another 70 or -- what is</p> <p>2 that -- 283, another 50 or so grams is probably</p> <p>3 reasonable for a plastic container. So it was</p> <p>4 pretty full.</p> <p>5 Q. And you understand that this was -- this 11:12</p> <p>6 was a bottle of talcum powder that Mr. Eagles had</p> <p>7 in his possession?</p> <p>8 A. Yes, sir. That's my understanding.</p> <p>9 Q. And you tested the Assured, and you found</p> <p>10 chrysotile; is that correct? 11:12</p> <p>11 A. Yes, sir, that's correct.</p> <p>12 Q. Go back to -- and you have here -- this is</p> <p>13 your -- this is at page 22, and this is, you know,</p> <p>14 right before you signed here, this is kind of your</p> <p>15 ultimate opinion here; right? 11:13</p> <p>16 "Results of finding chrysotile."</p> <p>17 Then you say:</p> <p>18 "Based on these results, it would be</p> <p>19 my opinion that the application of the</p> <p>20 talcum powder found in Assured talcum 11:13</p> <p>21 powder container will cause significant</p> <p>22 exposure, over background, to chrysotile</p> <p>23 asbestos to individuals who used Assured</p> <p>24 brand talcum powder products for their</p> <p>25 intended purpose like Mr. Eagles." 11:13</p> <p style="text-align: right;">Page 397</p>
<p>1 I had a question for you while we're here.</p> <p>2 Looks like this -- this bottle of talcum powder</p> <p>3 had -- had a fair amount of talc left in it.</p> <p>4 A. Yeah, we have a picture. We were weighing</p> <p>5 all the containers. 11:10</p> <p>6 Q. I'm trying to find -- now, did you receive</p> <p>7 it -- you have this -- the top off here in this</p> <p>8 picture.</p> <p>9 Do you see that?</p> <p>10 A. We did not receive it like that. How we 11:11</p> <p>11 received it is -- would be shown in pictures 1 and</p> <p>12 2. I think what we had here is a particular type</p> <p>13 of bottle where you could maybe -- where the top</p> <p>14 came off.</p> <p>15 Q. And here's the picture of it being weighed 11:11</p> <p>16 here. And I think that's at page 73 of your</p> <p>17 report.</p> <p>18 A. Yes. 334 grams. And we don't know</p> <p>19 what -- how much the container was.</p> <p>20 Q. That was what I was going to ask you, 11:11</p> <p>21 because we do know that the talc and the container</p> <p>22 weighs 283, grams, right, if it's full?</p> <p>23 A. Yeah, 10 ounces, so it would be 283 grams.</p> <p>24 So -- and another -- where is it? Another -- why</p> <p>25 am I having a hard time finding it, because it's 11:12</p> <p style="text-align: right;">Page 396</p>	<p>1 Do you see that?</p> <p>2 A. Yes, sir.</p> <p>3 Q. I guess my question for you is, what does</p> <p>4 that mean? "Significant exposure over</p> <p>5 background," is that significant exposure over 11:13</p> <p>6 background during the day of that application?</p> <p>7 Over the course of a person's life? What do we do</p> <p>8 with that?</p> <p>9 A. Well, "significantly over background"</p> <p>10 means that if you take an artificial background 11:13</p> <p>11 level, say like the ATSDR, the Agency For Toxic</p> <p>12 Substance Disease Register, in around 1980, they</p> <p>13 came up with a level of 0 point 4 zeros and a 5</p> <p>14 for an urban environment, and 0 point four zeros</p> <p>15 and a 1 for, you know, an urban and rural -- 11:14</p> <p>16 that's what I'm trying -- rural area. That, in my</p> <p>17 opinion, there is no background of chrysotile</p> <p>18 asbestos unless it's -- you're in an area where</p> <p>19 it's being disturbed.</p> <p>20 So I always look at how much is in there, 11:14</p> <p>21 and if you're going to have a background of, say,</p> <p>22 0.0005, that if you have the ability to measure</p> <p>23 the exposure in a way that would give you the</p> <p>24 detection limit you need, that it would be above</p> <p>25 .00005 fibers per cc. 11:15</p> <p style="text-align: right;">Page 398</p>

<p>1 And that's an opinion based on what we 2 would -- if we could be able to make that 3 measurement at that level. I don't believe in 4 this, well, it's going to be below background what 5 the exposure is. I don't think that's a very 11:15 6 scientific method of saying something about an 7 exposure. 8 Q. Okay. And I think you've been deposed at 9 length on sort of what you think about exposure 10 levels; correct? 11:15 11 A. Oh, probably north of a hundred hours. 12 Q. Okay. And this opinion isn't any 13 different than any other opinions you've provided 14 with respect to that? 15 A. No difference. 11:16 16 Q. Okay. In his deposition, Mr. Eagles' 17 deposition, you noticed -- you pulled out the 18 Assured note, but did you notice that 19 Mr. Satterley introduced this bottle of talcum 20 powder as a Safeway product? 11:16 21 A. That's -- yeah, I don't know that one way 22 or the other. If it's not a Safeway product, then 23 he's wrong. If it is, he's right. 24 Q. And are you aware that Greenbrier 25 International is essentially a distribution arm of 11:16 Page 399</p>	<p>1 you read where Mr. Eagles thought that he probably 2 bought this in, like, 2015 or 2016? 3 A. Well, I know he was -- you know, after he 4 said he quit putting it on his body, I know that 5 he was still using it when he played tennis. When 11:18 6 we start getting to be 2017 or 2018, you know, 7 that time period where he had to stopped playing 8 tennis because of his meso issue. But as far as 9 it says 2017 on it, he may have bought in it 2017. 10 You know, I don't know. Or was that the 11:18 11 expiration date? I don't remember. 12 Q. It has an expiration date of 2017. 13 A. Okay. So it could have been 2016; it 14 could have been 2015. I don't know. 15 Q. How does this Assured Body Powder factor 11:19 16 into Exhibit 6, which is your exposure notes and 17 talcum powder container calculations? 18 A. Well, the only talcum powder calculations 19 I did was the Johnson's Baby Powder. The others 20 were less. I don't -- find it here in a minute. 11:19 21 Q. What are you looking at right now, 22 Dr. Longo? 23 A. I was thinking about something else. 24 These are the overall body powder 25 calculations. It's not broken down. I just said, 11:19 Page 401</p>
<p>1 Dollar Tree stores? 2 A. No, sir, I don't really keep up with that. 3 Again, that's out of my area. I just do the 4 analysis. 5 Q. You don't have any opinion in this case on 11:17 6 why Safeway would be selling a Dollar Tree store 7 brand in its stores, do you? 8 A. No, sir, I don't have an opinion one way 9 or another. Again, it's something that's not 10 important to me when I do this type of analysis. 11:17 11 If Safeway never had anything to do with 12 this type of product, then fine. If they did, 13 also -- you know, I don't mean fine, but I mean, 14 that's not really up to me to say one way or the 15 other. 11:17 16 Q. Do you have an opinion as to how many 17 bottles of Assured brand talcum powder Mr. Eagles 18 used throughout the course of his life? 19 A. No, sir. 20 Q. But it's one of the store brands that he 11:17 21 used after he stopped using Longs and Safeway, it 22 appears? 23 A. If this is not a Safeway product, yes. 24 2017 would be after the fact. 25 Q. And did you have an understanding -- did 11:18 Page 400</p>	<p>1 okay -- he said, you know, 52 weeks a year, 4 days 2 a week, 1 application a day, depending. It 3 doesn't matter which ones it is. These are the 4 overall -- I apologize. I led everybody astray 5 here. I wasn't trying to break it down -- there 11:20 6 is no way for me to break it down into individual 7 containers. This was everybody. 8 So I said, okay, 9-ounce talcum powder 9 containers, 537 of them. 10 Q. Why do you use 9-ounce? 11:20 11 A. 9-ounce is pretty common. You know, it 12 doesn't matter. I try to use something 13 conservative. If you've got 10 ounces or 12 14 ounces, you know, you can use 15 ounces or 10 15 ounces or 12 ounces. It doesn't change the 11:20 16 amount, just how many containers you have. 17 9-ounce seems to be pretty common. And 18 the most used product here was Johnson's Baby 19 Powder. That's a 9-ounce. And you find 9 ounces 20 and 10 ounces on other ones. 11:21 21 Since I can't break it down, even though 22 Johnson & Johnson is the most, I have to make some 23 assumptions on how much the most and how much the 24 other two are. 25 Q. And you're not able to do that, as you sit 11:21 Page 402</p>

<p>1 here today?</p> <p>2 A. No, sir. I would have to have some more</p> <p>3 information, such as what I have in my -- and I</p> <p>4 got more information on this Su application, too.</p> <p>5 I put it in there. 11:21</p> <p>6 So if -- if you can change it up, you want</p> <p>7 to be even -- you know, it's not going to change</p> <p>8 the amount of exposure -- the amount of exposure,</p> <p>9 but it would change how many containers if you</p> <p>10 want to put 10-ounce or 12-ounce or 13-ounce or 11:21</p> <p>11 whatever. It would just change the equation a</p> <p>12 little bit.</p> <p>13 Q. This exposure notes, Exhibit 6, as I'm</p> <p>14 understanding it, is -- is your -- your</p> <p>15 calculation of the total number of bottles, and 11:22</p> <p>16 that includes Johnson & Johnson, store brands,</p> <p>17 whatever, from any store, including potentially</p> <p>18 Equate or Assured or anything in there; you</p> <p>19 haven't broken it down into the number of each;</p> <p>20 correct? 11:22</p> <p>21 A. Correct.</p> <p>22 Q. And you can't -- you don't have the</p> <p>23 ability to do that other than to say, like, I</p> <p>24 believe that your opinion is that Johnson &</p> <p>25 Johnson was the most? 11:22</p> <p style="text-align: right;">Page 403</p>	<p>1 A. Yes (indicating). We verified that it is</p> <p>2 starch, and there was nothing else in there but</p> <p>3 starch. I'll give you another. This is all</p> <p>4 starch particles (indicating). There was nothing</p> <p>5 else in here. 11:24</p> <p>6 Now, we looked at other samples that say</p> <p>7 "contains baking soda and starch," when you turn</p> <p>8 it around the back, and talc is on there, along</p> <p>9 with baking soda and starch. They don't put it on</p> <p>10 the front. Doesn't have anything to do with you. 11:24</p> <p>11 That's just another case and, yes, we did find</p> <p>12 asbestos in that, but not very much.</p> <p>13 Q. Let me understand this.</p> <p>14 So you found asbestos in a non-talc</p> <p>15 product, non-talc body powder product? 11:24</p> <p>16 A. No, no, no. And I probably didn't explain</p> <p>17 it very well, and I apologize.</p> <p>18 The front of the container, like the</p> <p>19 Equate, says "made with cornstarch." Now, if you</p> <p>20 go to the back of the container, it gives you all 11:25</p> <p>21 the rest of the, you know, the major ingredients,</p> <p>22 and it says cornstarch, active ingredients,</p> <p>23 nonactive ingredients. It says, Zea mays</p> <p>24 cornstarch, tricalcium phosphate, aloe whatever,</p> <p>25 some leaf extract, fragrance, some other stuff. 11:25</p> <p style="text-align: right;">Page 405</p>
<p>1 A. Well, it's not that I believe. It's the</p> <p>2 evidence, in talking to them as well as, you know,</p> <p>3 his wife only bought Johnson -- I mean,</p> <p>4 Mr. Eagles' wife, Georgia Eagles only bought 11:22</p> <p>5 Johnson & Johnson. He said he mostly preferred</p> <p>6 Johnson & Johnson. So I would say the evidence</p> <p>7 supports that.</p> <p>8 Q. Okay. If you look at your testing of</p> <p>9 Assured and Equate.</p> <p>10 A. Yes. 11:23</p> <p>11 Q. By the way, you haven't found a way to do</p> <p>12 PLM analysis of cornstarch where you can find</p> <p>13 talc, have you -- sorry -- where you can find</p> <p>14 asbestos. I'm sorry.</p> <p>15 (Reporter clarification.) 11:23</p> <p>16 BY MR. RISING:</p> <p>17 Q. Let me rephrase the question. I just want</p> <p>18 to make sure.</p> <p>19 You don't have a PLM analysis of</p> <p>20 cornstarch where you found a way to find asbestos 11:23</p> <p>21 in cornstarch, do you?</p> <p>22 A. There is no asbestos in cornstarch unless</p> <p>23 somebody had contaminated it, in my opinion.</p> <p>24 Q. Did you look in the Equate to see if there</p> <p>25 was any? 11:24</p> <p style="text-align: right;">Page 404</p>	<p>1 There's nothing in there that says "talc."</p> <p>2 And when we did the analysis -- it also</p> <p>3 says:</p> <p>4 "This product is not manufactured or</p> <p>5 distributed by Johnson & Johnson Consumer 11:25</p> <p>6 Products, Inc., distributor of Johnson's</p> <p>7 Baby Powder cornstarch."</p> <p>8 Something tells me there was a lawsuit in</p> <p>9 there somewhere.</p> <p>10 However, so we didn't expect to find talc, 11:25</p> <p>11 but we did an analysis anyway. So I would not --</p> <p>12 if we were to find asbestos in a cornstarch</p> <p>13 sample, I would not believe anything from that</p> <p>14 unless -- you know, that would be something</p> <p>15 unusual. 11:26</p> <p>16 But I have seen a product, and I can't</p> <p>17 remember which one it was, where the front of it</p> <p>18 said, "made with baking soda and cornstarch."</p> <p>19 Turn it over to the back where typically the first</p> <p>20 ingredient is the highest concentration 11:26</p> <p>21 ingredient, and then it goes down from there when</p> <p>22 they put anything on there, and the first</p> <p>23 ingredient was talc, the second ingredient was</p> <p>24 starch, and the third one was the chemical name</p> <p>25 for baking soda, which is -- so I have seen it 11:26</p> <p style="text-align: right;">Page 406</p>

<p>1 where baking soda -- where cornstarch has been 2 mixed with talc. 3 Q. I'm going to move on, Dr. Longo. I think 4 I found a version of this, so I can show you now. 5 Apologize for not being able to do this earlier. 11:27 6 A. You don't have to apologize. I'm here at 7 your request. 8 Q. Okay. So this is your declaration in 9 opposition to -- let me show you the first page -- 10 Declaration in Opposition to Defendants' Motions 11:27 11 For Summary Judgment and Adjudication. 12 This was Exhibit -- this was attached as 13 Exhibit 23 to this deposition -- 14 A. Okay. 15 Q. -- an earlier version of the deposition. 11:27 16 Does this look familiar to you? 17 A. Well, I mean, you can just go to the back 18 and probably see my signature and the date. Yeah, 19 I see some of the material -- what I have written 20 is a basic outline in a lot of these. 11:27 21 Q. This is pretty standard in your 22 declarations; right? 23 A. Depending -- depending on anything new, 24 et cetera, yes. 25 Q. But basically up through -- the first part 11:28 Page 407</p>	<p>1 Q. And do you understand that they put an ad 2 in the paper and then purchased each one of those 3 15 containers for \$200 from the owners? 4 A. Everything about what you say I know, and 5 this is the first time I've heard about \$200. 11:30 6 Q. Okay. You knew that they bought them; 7 right? 8 A. I knew they put an ad out. And I knew 9 that these were from owners of it because they 10 have, I think, affidavit from each of the people. 11:30 11 Q. Okay. And you have those in your Longs 12 report, the affidavits; right? 13 A. Yes sir, I do. 14 Q. And you rely on those for the chain of 15 custody? 11:30 16 A. Yes, that this is -- here's the history of 17 the containers. 18 MR. REID: Belatedly vague and ambiguous 19 to "chain of custody." Calls for a legal 20 conclusion. 11:30 21 BY MR. RISING: 22 Q. What do you understand to be a chain of 23 custody, Dr. Longo? 24 A. Well, they can be all kinds of things. 25 Chain of custodies are when samples arrive here. 11:30 Page 409</p>
<p>1 of it is just your qualifications as an expert; 2 right? 3 A. Correct. 4 Q. Are you recalling this now, materials 5 identifying the sources of talc used in Longs and 11:28 6 Safeway's baby powder? 7 Are you relying on this, on the opinions 8 expressed in this declaration, for any opinions 9 you intend to offer at trial in this case? 10 A. No. I mean, Montana and Chinese is -- 11:28 11 what I think I stated earlier, we have analyzed a 12 lot of samples out of those mines. If it's, in 13 fact, Chinese and Montana, I've already given you 14 my opinions about what -- what I believe is the 15 prominent asbestos type in those two mines. 11:29 16 Q. Okay. That's what this declaration goes 17 through. 18 So let me just -- in this declaration, you 19 talk about Longs Baby Powder testing. Let me 20 start here real quick first, an overview of the 11:29 21 Longs Baby Powder testing in this declaration. 22 You recall that the 15 containers of Longs 23 Baby Powder that you tested, those were provided 24 by the Kazan firm; correct? 25 A. Yes, sir. 11:29 Page 408</p>	<p>1 That's usual what every -- labs, okay, here's our 2 chain of custody, that this arrived on this day, 3 and here's what's happened to the sample until a 4 report goes out and we archive the sample. 5 Now, in the cosmetic talcs litigation, 11:31 6 people have taken it much further. Some say you 7 have to have a chain of custody from the day that 8 container was -- left the manufacturing facility. 9 I don't believe that is necessary, but some do. 10 This one, I think, cures that issue. 11:31 11 That, to me, is a nonissue. 12 Q. And you have declarations from the owners, 13 right, that you are relying on for the purpose 14 here that they were never refilled, manipulated, 15 or altered? 11:31 16 A. Well, yes and no. 17 Q. Well, I understand yes. How no? 18 A. Well, no, I don't have to have an 19 affidavit from any -- any person on that, how -- 20 you know, how -- never refilled. 11:32 21 Well, unless you can take the top off in 22 an easy manner, such as -- such as maybe Clubman, 23 where you can -- some of the newer containers, you 24 can screw the top off, because barber shops use 25 them and want to put them in a bowl -- you know, 11:32 Page 410</p>

<p>1 put the powder in a bowl and use a brush -- it's 2 impossible to refill them without damaging and 3 taking the top off. 4 And manipulated or altered, you can't 5 really manipulate it. What? Are you going to -- 11:32 6 you're going to put asbestos in there? You're 7 going to put chrysotile in there? You're going to 8 get the chrysotile that has the appropriate size 9 range? Or are you going to put tremolite in there 10 in a concentration that wouldn't make it too 11:32 11 suspicious, such as, you know, in the microgram 12 level or in the gram level? 13 I don't buy that. There's never really -- 14 never been any evidence that something has ever 15 been manipulated. 11:33 16 Now, we have found -- we have found 17 containers in the past that, we look at it, and 18 somebody drilled -- you know, somebody drilled a 19 hole in the bottom to fill it and put tape over 20 it. Yes, that's been manipulated, and that does 11:33 21 not get analyzed. 22 So that's why I say it's yes and no. 23 Q. All right. But you included them in your 24 report; right? 25 A. Yes, sir, just like I include ones that 11:33</p> <p style="text-align: right;">Page 411</p>	<p>1 Q. When you take your samples that you're 2 going to put on the slides out of the talc -- 3 talcum powder bottles, do you just -- you shake it 4 out? Is that what you're telling me? 5 A. Well, typically, we don't do the shaking. 11:35 6 What we do is just open it and squeeze it. And 7 the air in there drives it out. And once we 8 have -- you know, usually our reports say 1 to 9 2 grams, but it's really closer to 1 gram. Once 10 we have that amount, we stop. 11:35 11 Q. And were all of the Longs Baby Powder 12 bottles that you -- that you tested were used; 13 correct? 14 A. I mean, I don't remember, but I believe 15 so. 11:35 16 Q. And you haven't tested any Longs Baby -- 17 for some manufacturers, you have tested historical 18 samples that were at the manufacturers or from the 19 manufacturer; correct? 20 A. Correct. 11:35 21 Q. That's not the case with the Longs Baby 22 Powder bottles; correct? 23 A. Correct. Yeah, I mean, I haven't -- I 24 haven't remembered exactly what Longs said, but I 25 think Longs -- somewhere along the line, I kind of 11:36</p> <p style="text-align: right;">Page 413</p>
<p>1 have been purchased on eBay in my reports. Not -- 2 not these ones, but others. 3 Q. And you included in a declaration under 4 penalty of perjury that -- this statement: 5 "According to the declaration of each 11:33 6 owner, the contents of the Longs Baby 7 Powder were original to the day it was 8 purchased." Right? 9 A. Well, that's their declaration, so I'm 10 stating what they say. 11:33 11 Q. And you're also relying, in part, on the 12 declarations for the timing of when they were 13 potentially purchased; is that correct? 14 A. Correct. Well, it's not so much when they 15 were purchased, as been in there -- it's what 11:34 16 their declarations say. What I was saying, it's 17 not me saying this, it's them saying this. But 18 what I'm saying is, even if they -- I don't -- 19 I've only found -- strike that. 20 What I'm saying is, in my opinions, 11:34 21 depending on the containers, it's very hard or 22 almost impossible to manipulate these or refill 23 them. You can't get talc back through the small 24 holes. You have to -- you have to do something 25 more creative. 11:34</p> <p style="text-align: right;">Page 412</p>	<p>1 remember that Longs didn't have any. 2 Q. And so just the historical samples are not 3 available for Longs; correct? 4 A. That's my understanding. That's what I 5 recall. 11:36 6 Q. We talked about -- follow up on this a 7 little bit. You said you're working on the TEM 8 analysis for chrysotile? 9 A. Yeah. We're getting close. 10 Q. Separate from doing, like, an analysis, 11:36 11 have you -- you tested, Longs, right, and you 12 found chrysotile; correct? 13 A. Correct. 14 Q. Now -- and so you know it's there 15 somewhere; right? 11:36 16 A. It has chrysotile in it. 17 Q. Yeah. So in every sample, you should be 18 able to find some small amount of chrysotile; 19 right? 20 A. Well, we can show you, right, the range 11:37 21 was -- three zeros and a 9 is the low end, to 22 0.005 percent. 23 Q. Separate from coming up with a repeatable 24 analysis of it, is there any reason that you 25 couldn't have somebody just look under TEM and 11:37</p> <p style="text-align: right;">Page 414</p>

<p>1 just find a chrysotile -- a piece of chrysotile so 2 that we could see it and you could tie that back 3 and say, "No, we found it via the TEM. Here's 4 what it looks like for the Longs Baby Powder"?</p> <p>5 A. I'm not going to do that analysis until I 11:37 6 am satisfied what -- one, what the TEM -- what its 7 detection limit is, and, two, that we have 8 developed a method to the point that at least 9 90- -- 97 to 98 percent of what is in there when 10 we do the separation with the SG-210 is in the 11:38 11 light fraction where it should be so that we know 12 we have the most efficient -- and if we can't 13 identify it by TEM and it's not there at that 14 point, well, I guess I'll have to retire.</p> <p>15 No, I'm just kidding. 11:38</p> <p>16 I want to publish this. I want to be able 17 to -- there is absolutely no requirement in any 18 federal regulation or any methodology ever saying 19 that once you've identified it by PLM, that you 20 need to verify your analysis by TEM. 11:38</p> <p>21 But I do plan on doing that at some point, 22 when we have the research to the point where I 23 know exactly what -- that it's -- that we have the 24 most efficient, robust amount of the chrysotile.</p> <p>25 And since we have a really good alternate 11:39 Page 415</p>	<p>1 best opportunity, then you don't know if you are 2 going to be right or wrong because you don't know 3 if you have the best way to separate it out to 4 give you the ultimate chance to be able to say yes 5 or no. 11:40</p> <p>6 Q. I just want to make sure -- like, I 7 understand you're working on this, but you 8 didn't -- you haven't had anybody go look at Longs 9 Baby Powder -- and I'm just focused on Longs Baby 10 Powder. I'm not concerned what you found out of 11:41 11 the others. These are 15 bottles of Longs Baby 12 Powder that were tested; right?</p> <p>13 A. We take 15 -- not having looked at the 14 Longs materials, you know, since -- I haven't 15 looked at the Longs material since the Prudencio 11:41 16 case.</p> <p>17 Q. Right. And it was back in -- it was back 18 in April of 2021; right?</p> <p>19 A. Right.</p> <p>20 Q. So you've had a -- you've had more than 11:41 21 two years to take a look via TEM to confirm and 22 see if there was -- if what you're seeing and 23 calling chrysotile is, in fact, chrysotile; right?</p> <p>24 A. What we're calling chrysotile is, in fact, 25 chrysotile. It is not fibrous talc at all. And 11:41 Page 417</p>
<p>1 to just -- and being able to start with a known 2 concentration in these samples, it allows me to 3 get to the point where I can say, "Stop. We have 4 the best method available to remove the chrysotile 5 out of the talc and harvest it, so to speak. Now 11:39 6 it's time to do TEM."</p> <p>7 Q. I understand the reasons that you don't 8 want to do an analysis and you want to get it 9 perfect and you want to publish it, but I just 10 want to back up a little bit. 11:39</p> <p>11 Just from a curiosity standpoint, because 12 I think the jurors will be curious, did you have 13 anyone even try and look through the -- at Longs 14 Baby Powder under TEM to see if you could just see 15 chrysotile? 11:40</p> <p>16 A. I mean, we have seen it by SEM, some of 17 the bigger structures that are in there, and we 18 know others have seen by TEM.</p> <p>19 But I would -- this is the type of 20 research that takes time and a lot of effort, and 11:40 21 I prefer to have the best opportunity to be able 22 to say "yes" or "no"; "No, we cannot find it by 23 TEM, and, you know, I'm wrong," or "Yes, we did 24 find it. I was right."</p> <p>25 But to go in it where you don't have the 11:40 Page 416</p>	<p>1 we have shown that it's -- we have found it by SEM 2 in Montana samples --</p> <p>3 Q. Let me stop you there.</p> <p>4 A. I wasn't done.</p> <p>5 But to go and say, "I don't have the best 11:42 6 opportunity to prove it one way or the other 7 because, oh, you're curious; let's just go a 8 look," well, you know -- and then, well, yeah, we 9 took a look, we didn't find it, because we were 10 curious, I don't know if it's the best 11:42 11 opportunity.</p> <p>12 I mean, I've been doing this long enough. 13 And then you get beat around the head with it. If 14 I am going to get beat around the head with it, I 15 would rather have it the best opportunity for us 11:42 16 to show it is or it isn't.</p> <p>17 Q. Well, and part of that is because -- is 18 because of the way in which you're looking at 19 this; right? It's because you are in litigation 20 and you have attorneys like me who will ask you 11:42 21 questions about it. So if you go and be curious 22 and then it's wrong, I'll use that against you; 23 right? That's essentially what you are saying?</p> <p>24 MR. REID: Argumentative, misstates, and 25 incomplete hypothetical. 11:43 Page 418</p>

<p>1 THE WITNESS: Well, what I am saying is, 2 why not -- why not give it the best opportunity? 3 I mean, to me, this is a Ph.D.-level research 4 project that -- we're doing it when we're not 5 running regular samples. I mean, we're getting 11:43 6 there, and I'm going to publish it. 7 I believe -- you know, I know I'm right on 8 this. We found it by SEM. I can -- you know, 9 it's not fibrous. It's not talc. It's not talc 10 plates on edge. And nobody has come up with any 11:43 11 other minerals that it's supposed to be, because 12 it's not -- it's not talc. It's not talc at all. 13 BY MR. RISING: 14 Q. Okay. Let me just follow up on that. So 15 the SEM -- 11:43 16 And I'm just -- I'm just talking about 17 Longs. I've got to get up and defend Longs in 18 this trial. Okay? So let's just focus on Longs; 19 right? 20 You have found it for other -- you're 11:44 21 saying you have found it -- confirmed it via SEM 22 in -- for other products? 23 A. Yeah, might be right where you cut off -- 24 but it's not -- it's not the other products. It's 25 the mine source. 11:44</p> <p style="text-align: right;">Page 419</p>	<p>1 correct? 2 A. I don't know -- besides Alan Segrave, I 3 don't know anybody else who has analyzed Longs 4 Baby Powder. 5 Q. But no one else has confirmed that there's 11:46 6 chrysotile in Longs Baby Powder other than your 7 lab; correct? 8 A. Well, it's hard for me to say "yes" or 9 "no." I'm not keeping track of everybody else 10 unless I get a report. 11:46 11 So the only report I've got from somebody 12 else that has looked at this -- that I've gotten a 13 report from is Alan Segrave. 14 Q. That's all you're aware of, is Mr. 15 Segrave? 11:46 16 A. No, that's the tremolite one. 17 Q. And -- 18 A. Yes. I'm sorry. I didn't answer your 19 question. Yes. That's the only one I know -- 20 it's not that I know of. You know, unless a 11:46 21 report comes across my desk, I don't -- I'm not 22 going to talk about anybody may or may not know. 23 Q. You were talking about the Montana mines, 24 and in this declaration, you have opinions 25 regarding Montana talc used in Longs and Safeway 11:47</p> <p style="text-align: right;">Page 421</p>
<p>1 I think we also found it in Gold Bond, one 2 of them, but I think we just -- we took a look at 3 a couple of the Montana samples by SEM, and it's 4 easier. 5 But then people argue, "Well, it's not 11:44 6 chrysotile; you don't know if it's chrysotile," 7 that sort of thing. 8 Q. Did you look at the Longs Baby Powder by 9 SEM to confirm what you're seeing is chrysotile is 10 chrysotile? 11:44 11 A. We have not done Longs Baby Powder by SEM. 12 We have done none of these by TEM. 13 Q. And you do a TEM analysis for amphibole 14 asbestos; correct? 15 A. Correct. 11:45 16 Q. And is there any reason that when you're 17 doing the TEM for amphibole asbestos you wouldn't 18 be able to come across and see some chrysotile -- 19 I guess you're calling them bundles? 20 A. The reason is that we're -- by TEM, we are 11:45 21 doing a heavy density of 2.85. Only amphiboles 22 are going to be found down in the pellet. 23 Q. And no one -- just focusing on the Longs 24 Baby Powder samples, you haven't had another lab 25 or another microscopist confirm your analysis; 11:45</p> <p style="text-align: right;">Page 420</p>	<p>1 baby powder. So at one point in time, you thought 2 that there was Montana talc used there? 3 A. I think it was from that person most 4 knowledgeable deposition that I referenced back a 5 ways and maybe -- you know, maybe -- 11:47 6 Q. You're talking about Mr. Mobley -- 7 A. Correct. 8 Q. -- who testified in Prudencio? 9 A. And, you know, the group in Tennessee. 10 But I think Alan Segrave said the exact 11:47 11 same thing in his report, because he talked about 12 Montana and Chinese. 13 Q. So let's just walk through this really 14 quickly. 15 As I understand the opinions -- are you 11:47 16 intending to provide the opinions that are in this 17 declaration in this case? 18 A. It's not an opinion -- I don't look at 19 those as opinion. If this is what somebody said, 20 then it's a fact. If nobody testified that it was 11:48 21 from Montana and nobody knows, then no, it's not a 22 fact. Then I would have the opinions that if it 23 was these mines, it's going to have asbestos in 24 it. 25 Q. Okay. Let me focus on this, then. If -- 11:48</p> <p style="text-align: right;">Page 422</p>

<p>1 assuming that someone testifies that some -- at 2 some point in time, some Safeway or Longs Baby 3 Powder came from Montana, let's -- let's see if 4 this would be the basis for that, for your opinion 5 that all Montana talc has asbestos in it. Is that 11:48 6 fair? 7 A. That's fair. They're all in the same 8 geological formation. They're all going to have 9 asbestos in them, in my opinion. No matter if 10 it's Yellowstone, Beaverhead, Treasure, Willow 11:49 11 Creek, they're all going to have asbestos, in my 12 opinion. 13 Q. Okay. And as I understand -- and I'm not 14 going to walk through the whole thing, because we 15 don't have enough time. But in this declaration, 11:49 16 you essentially cite some -- some articles and 17 resources to, first, indicate that there are only 18 really five mines at issue in Montana; do you 19 agree with that? 20 A. I agree. 11:49 21 Q. Okay. And then because -- because 22 Mr. Mobley only referenced the talc was 23 potentially from Montana, you don't know which 24 mine; right? 25 A. No. 11:49</p> <p style="text-align: right;">Page 423</p>	<p>1 think, Gunter; probably Sanchez, too. But we have 2 found it. The EPA says there's asbestos in some 3 of the mines. Our Night Magic analysis for Avon 4 used the same mines. We found it in that. 5 So it's my opinion. 11:51 6 Q. I understand, Dr. Longo. I'm just trying 7 to separate out the basis for your opinion. 8 So you have some articles and EPA reports 9 with respect to describing the mines and 10 describing the potential in some of them some 11:51 11 potential for asbestos or asbestiform minerals in 12 that area; correct? 13 A. Correct. That's some of the reason. 14 Q. Those -- if you didn't have your own 15 testing, those articles by themselves wouldn't 11:52 16 allow you to render your opinion to a reasonable 17 degree of scientific certainty that Safeway -- if 18 Safeway's baby powder came from Montana mines, it 19 had asbestos in it; correct? 20 A. I don't know if that's correct or not. 11:52 21 That's not the situation I have. You know, it's a 22 hypothetical. 23 If your hypothetical was correct that I 24 didn't have any information about Montana, I may 25 not be able to render any opinion about asbestos 11:52</p> <p style="text-align: right;">Page 425</p>
<p>1 Q. So then what you do here is you're 2 trying to -- you're trying to tick off a basis for 3 each of the mines, right, to show that there was 4 asbestos in each of the mines? 5 A. We analyzed a number of different products 11:50 6 from different mines. 7 Also, there's not a lot of things that I 8 agree with Mickey -- Dr. Gunter with, but 9 Dr. Gunter testified that because of the -- it's 10 all in the same geological deposit, the mines 11:50 11 would all be the same. 12 Q. Got that. But what I want -- you have -- 13 you have some articles from the '70s that talk 14 about the mines, right, and then -- and that, in 15 and of itself, isn't enough for you to render an 11:50 16 opinion that the mines have asbestos in them and 17 that everything that comes from those mines has 18 asbestos in it; correct? 19 A. Between the articles, between our own 20 testing, between other -- it verifies my opinion 11:50 21 that you're not going to have any difference from 22 one mine to the next since it's all the same 23 geological deposit. 24 Now, there's opinions that none of the 25 mines have it in it: you know, Segrave and, I 11:51</p> <p style="text-align: right;">Page 424</p>	<p>1 in it, but that's not what we have here. 2 Q. And I'm trying to separate out the two. 3 Can you do that? Would you feel comfortable 4 rendering that opinion solely based upon the 5 sources -- the published sources that you quote in 11:52 6 this declaration? 7 MR. REID: Vague, ambiguous, incomplete 8 hypothetical, misstates fact, improper 9 hypothetical. 10 THE WITNESS: It's very hard for me to 11:53 11 unring the bell. You know, I don't have your set 12 of facts, so I can't give you an opinion on your 13 set of facts. 14 BY MR. RISING: 15 Q. Okay. Let's go -- but you would agree 11:53 16 that part of your opinion is the testing that you 17 have done on these mines, and you think that 18 that's important; correct? 19 A. Well, the testing shows what we have 20 found, and then the rest of it also shows that 11:53 21 others have found. EPA states it's there, and 22 other papers. 23 So for me to say, okay, I'm going to 24 eliminate everything over here and just say, could 25 I say that here -- and I don't have all -- you 11:53</p> <p style="text-align: right;">Page 426</p>

<p>1 know, I don't have all the information in here. 2 I don't have the information I know about 3 Johns-Manville Research Center finding chrysotile 4 positive in 13 out of 13 Montana samples. Now, 5 they called two cross-contamination, but a lot of 11:54 6 chrysotile in other. 7 And I think it was either Cyprus or Pfizer 8 that tested the TEM on something like almost 2,000 9 Montana samples, and 25 percent of them -- back in 10 the '70s, and they did TEM and XRD -- and SAED on 11:54 11 it and found almost 30 percent of them positive 12 for chrysotile. 13 Also tremolite, you know, amphiboles have 14 been found there. 15 So there's not just this. There's other 11:54 16 information out there. 17 Oh, there we go. 18 "I've reviewed Johns-Manville's 19 Research Engineering Center" -- 20 Q. Yeah, yeah, yeah. So that's what you were 11:54 21 just talking about right there; right? So -- and 22 that's paragraph 22. 23 A. -- Cyprus -- and, also, I was just talking 24 about Cyprus, and, you know, and I think also 25 Pfizer was involved in some of that. 11:54</p> <p style="text-align: right;">Page 427</p>	<p>1 A. I think '74, '75, something like that. 2 Q. I want to talk about the testing that 3 you've personally done or your lab has done that 4 you understand to be from Montana mines. 5 There's -- and the five -- it's the five Montana 11:56 6 mines that you are trying to exclude with this 7 testing; right? 8 A. Trying to exclude? 9 Q. Trying to -- you're trying to confirm that 10 there's asbestos in each of the five Montana mines 11:56 11 based upon your testing; correct? 12 A. No. I'm just trying to say that if they 13 said it was Montana, we'll do the testing on it 14 and then see what we find for what they say 15 they're using in Montana. 11:57 16 Q. Paragraph 21 says: 17 "Our testing has shown regulated 18 asbestos in Avon and Colgate talc products 19 sourced from Montana mines, all located in 20 the southwestern part of the state. 11:57 21 "Hence, based upon my education, 22 expertise, and a detailed review of the 23 materials mentioned herein, I'm of the 24 opinion to a reasonable degree of 25 scientific certainty that asbestos, 11:57</p> <p style="text-align: right;">Page 429</p>
<p>1 Q. So that is a mine in Montana where they 2 found asbestos; right? And it's chrysotile 3 asbestos; correct? 4 A. Correct. 5 Q. And they confirmed it with TEM; correct? 11:55 6 A. Correct. 7 Q. And it was at concentrations that were 8 much higher than the concentrations you're 9 finding; correct? 10 A. By TEM? 11:55 11 Q. Yes. 12 A. Well, we haven't done TEM on ours yet 13 to -- but they found -- they had 13 samples. 14 Every one of them had chrysotile in it. But 15 samples -- two of the samples, they thought it was 11:55 16 too close to, quote, cross-contamination from 17 chrysotile. The other 11 were high amounts. 18 So it's not like they were different than 19 ours. We just don't have cross-contamination in 20 our stuff. 11:56 21 Q. And they did confirm them with TEM, 22 though; right? 23 A. Correct. 24 Q. And that was -- when did they do that? 25 Was that back in the '70s as well? 11:56</p> <p style="text-align: right;">Page 428</p>	<p>1 asbestiform fibers, and asbestiform talc 2 was and is present in the Montana mines 3 used for cosmetic talc in Longs and 4 Safeway baby powders." 5 See that? 11:57 6 A. Yes. 7 Q. Is that your opinion in this case? 8 A. Yes, it is. 9 Q. Okay. 10 A. Again, where the mines are for these two 11:57 11 is not really opinions. If either -- either -- if 12 neither Longs, I mean, or Safeway never used 13 Montana mines, they used some other source, I'd 14 like to know. Then I couldn't say it was -- you 15 know, you've got -- it wasn't all from Montana. 11:58 16 Q. Well, Dr. Longo, I'm trying to -- I'm 17 trying to just figure out, like, are all of your 18 bases for determining that there's asbestiform in 19 all of the mines in Montana set forth in this 20 declaration? 11:58 21 A. If it is chrysotile, and it's -- then that 22 is asbestiform. Nobody argues with that. So 23 every -- every one that we have done that has 24 chrysotile in it has asbestiform in it. 25 Then if we start looking at the -- you 11:58</p> <p style="text-align: right;">Page 430</p>

<p>1 know, when we find it with amphiboles, like -- 2 such as tremolite or anthophyllite, they're 3 typically bundles by TEM, and that's asbestiform. 4 THE WITNESS: I mean, I hate to -- I know 5 we are getting close, but I need a -- I need a 11:58 6 break. 7 MR. RISING: Yeah, we can -- let's take 8 five minutes. Or do you need ten? 9 THE WITNESS: I'm going to need a little 10 bit longer than that, five to ten minutes. Can we 11:58 11 go off the record? 12 MR. RISING: Sure. 13 THE VIDEOGRAPHER: We are going off the 14 record at 2:59 p.m. 15 (Recess taken.) 12:08 16 THE VIDEOGRAPHER: This is Media Number 4, 17 and we are back on the record at 3:28 p.m. 18 BY MR. RISING: 19 Q. Dr. Longo, were you able to find a copy of 20 the declaration that I have been asking you about? 12:28 21 A. That, I didn't look for. I'm sorry. I 22 thought we had finished it. 23 Q. No -- well, the problem is, what I -- what 24 I want to know is -- and, I guess, I don't know if 25 you're able to do it -- 12:28</p> <p style="text-align: right;">Page 431</p>	<p>1 A. Many times. I've done a lot of Avon 2 samples. 3 Q. Anything other than the formula that you 4 are relying on? 5 A. Other than where they stated that they got 12:30 6 the talc for that product, no. 7 Q. And when you say "where they stated," who 8 are you saying they are? 9 A. Well, Avon's formula. You know, formula 10 for the product. 12:30 11 Q. So within -- there's some formula document 12 that references Beaverhead mine for the 1987 time 13 frame? 14 A. Yes, sir. 15 Q. Did you read any testimony with respect to 12:30 16 that in forming your opinions? 17 A. Well, at the time I got deposed on it, may 18 have. I just don't recall. It's been a while. 19 Q. And how do you know that that -- that that 20 formula is -- or that that is accurate? 12:31 21 A. How do I know? 22 Q. Yes. Or do you know? 23 A. Well, I mean, that's what they stated for 24 when they made that product. 25 Q. Did you talk to anybody from Avon? 12:31</p> <p style="text-align: right;">Page 433</p>
<p>1 In the declaration, I just want to focus 2 on the testing. In the declaration, you talk 3 about testing one 1987 Avon Night Magic talc 4 powder that you understand was sourced from the 5 Beaverhead mine in Montana. 12:29 6 Are you familiar with that test? 7 A. I am. 8 Q. Have you tested any other -- are there any 9 other tests you're relying on with respect to the 10 Beaverhead mine in Montana? 12:29 11 A. Probably since that time, I have done a 12 few other Avons. But to be fair, that would be 13 the only Avon I would be relying on. 14 Q. And how is it that you know that it's from 15 the Beaverhead mine? 12:29 16 A. From Avon's formulas. 17 Q. And did you produce those in this case? 18 MR. REID: Assumes facts. 19 THE WITNESS: I doubt it. 20 BY MR. RISING: 12:29 21 Q. That's not part of your file for this 22 case; right? 23 A. No, sir, it's not. 24 Q. Okay. And have you actually reviewed the 25 Avon formula? 12:30</p> <p style="text-align: right;">Page 432</p>	<p>1 A. No. Of course not. 2 Q. Did you read any deposition testimony from 3 anyone at Avon? 4 A. I don't recall. 5 Q. So in order to confirm that it's from the 12:31 6 Beaverhead mine in Montana, we would need to -- we 7 would need to see -- at the very least, see that 8 formula; correct? 9 A. Well, I can -- I can -- not for this 10 deposition, but -- I mean, not for this -- during 12:31 11 this time, but I can -- I can look it up and 12 see -- make sure I still have it. I mean, I 13 should. And you want to mark it as an exhibit, 14 that's fine with me as long as my client is okay 15 with it. 12:32 16 MR. RISING: Sure. Let's mark -- let's 17 have that be next in order. 18 Is that 44, Early? 19 THE REPORTER: Yes. 20 (Whereupon, Defendant's Exhibit 44 was 12:32 21 marked for identification.) 22 BY MR. RISING: 23 Q. Okay. And so what's -- that would be -- 24 that would be related to a product that you tested 25 in 1987. How -- how is it that a product tested 12:32</p> <p style="text-align: right;">Page 434</p>

<p>1 in 1987 would have any bearing on something that 2 potentially came out of a Montana mine, let's say, 3 for a Safeway product in the 1950s? 4 MR. REID: Vague and ambiguous regarding 5 "tested in '87." 12:33 6 THE WITNESS: I wasn't testing any talc -- 7 I wasn't testing anything that had to do with 8 talcum powder in 1987. MAS had not even been 9 founded at that point. This was a 1987 container. 10 BY MR. RISING: 12:33 11 Q. I understand that. 12 So if you're testing a 1987 container, how 13 is it -- what is your opinion with respect to how 14 that relates to something that was potentially 15 mined in 1950, for example, or in the 1950s? 12:33 16 A. Because if it was mined out of Montana, 17 it's going to be the same geological formation. 18 It really doesn't matter if it's 1950s or '60s or 19 '70s or '80s or '90s or 2000s. It's coming from 20 that mine source. 12:33 21 Q. So if I understand this, your opinion is 22 that if you test one bottle of -- of a talcum 23 powder product that was available for consumers at 24 any point in time, the testing for that one bottle 25 determines forever that there is -- for the 12:34 Page 435</p>	<p>1 MR. REID: I'm allowed to assist -- 2 MR. RISING: Let me ask the question a 3 different way. 4 MR. REID: I'm allowed to assist you in 5 asking better questions by telling you how it's 12:35 6 wrong. 7 MR. RISING: You are. 8 BY MR. RISING: 9 Q. So -- so is this the only testing 10 that you're -- this is the only testing that 12:35 11 you're relying on with respect to the Beaverhead 12 mine in Montana; correct? 13 MR. REID: Misstates. 14 BY MR. RISING: 15 Q. For your opinions in this case. 12:35 16 MR. REID: Misstates former testimony. 17 Ignores former testimony. 18 THE WITNESS: That's not the only Montana 19 talc samples that I have analyzed. All Gold Bond 20 is from Montana. We've analyzed Cashmere Bouquet 12:36 21 from Beaverhead. We've analyzed -- I think those 22 are in there. We've analyzed a number of Gold 23 Bond that I think could be from either Treasure or 24 one of the others. 25 I'm also relying on information I said 12:36 Page 437</p>
<p>1 entire -- forever that that mine that it came from 2 has asbestos in every part of the mine and that 3 every bottle that comes out of that mine will have 4 asbestos in it? 5 MR. REID: Incomplete hypothetical. 12:34 6 Argumentative. Assumes facts. Ignores previous 7 testimony regarding historical sampling and 8 testing and other articles and other entities' 9 historical testing. 10 MR. RISING: Michael, that's not -- you 12:34 11 can say, "Assumes facts." You can't coach the 12 witness to remember everything that he's doing. 13 And by the way, you're referring to stuff that's 14 totally outside of his record here. 15 MR. REID: I'm not, considering that you 12:35 16 already went through those things with him earlier 17 on in this deposition. It's not coaching. It's 18 just pointing out on the record that your question 19 ignores those specific things, which under -- 20 under the California rules of court, I'm allowed 12:35 21 to point out the issues with your questions and 22 that -- 23 MR. RISING: But you're not allowed to 24 make -- you're not allowed to make speaking 25 objections, Michael. So let me just -- 12:35 Page 436</p>	<p>1 earlier about Cyprus's testing, about 2 Johns-Manville's testing. 3 I did not mention Gold Bond, but there -- 4 it's well-established that it's all Montana. And 5 it's either Treasure or one of the others. 12:36 6 I'm relying on what EPA says in some of 7 those mines. 8 So, no, it's not just based on this one 9 container, but it is based on the fact -- and that 10 particular container, we didn't do any chrysotile 12:36 11 testing, but we did find amphiboles in it. 12 Tremolite. 13 Q. But based upon that testing, you can -- 14 that testing establishes that there are -- there 15 are -- there are amphiboles present, in your 12:37 16 opinion? 17 I'm just trying to figure out what the 18 limits of your opinion are, Dr. Longo. 19 Your opinion are -- is that a bottle that 20 came out of the Beaverhead mine in Montana had 12:37 21 amphiboles present in it when you tested it, 22 amphibole asbestos, and therefore, every other 23 bottle that potentially came out of that mine has 24 amphibole asbestos in it, or does have amphibole 25 asbestos in it? 12:37 Page 438</p>

<p>1 MR. REID: Okay. Hold on. Well, hold on. 2 Vague and ambiguous as to "established." 3 Incomplete hypothetical. And ignores fact in 4 previous testimony regarding other considerations. 5 And I'll also object to the extent it's 12:38 6 incomprehensible. 7 THE WITNESS: The Alan Segrave report did 8 some testing to try to verify Dr. Steve Compton's 9 analysis of 52 retains from Montana, that three of 10 them -- three or four of them, he found tremolite, 12:38 11 anthophyllite, as well as chrysotile asbestos by 12 TEM out of the 52. 13 I did not bring that up, but since Alan 14 Segrave did in his report, I do have those 15 analysis. So it's not just me. It's also -- it 12:38 16 was -- either Pfizer or Cyprus also did amphibole 17 testing in Montana and found tremolite in it. So 18 it's just not me saying it because I found it 19 in -- in the Night Magic Avon container. 20 BY MR. RISING: 12:39 21 Q. Did you produce your Gold Bond testing in 22 this case? 23 MR. REID: Vague as to "produce." 24 THE WITNESS: I did not. 25 BY MR. RISING: 12:39</p> <p style="text-align: right;">Page 439</p>	<p>1 Q. And here, there's the Willow Creek and 2 Beaverhead mines; right? Those are the relevant 3 Montana mines; correct? 4 A. Correct. 5 Q. And I -- so -- and you tested product that 12:41 6 had Italian only in it, and you found asbestos in 7 that; correct? 8 A. Correct. 9 Q. And then these indicate -- when it 10 says "blend," that means the Italian is blended 12:41 11 with North Carolina and Willow Creek? 12 A. Correct. 13 Q. And you found asbestos in that; right? 14 A. Correct. 15 Q. Now, if you found asbestos in Italian only 12:41 16 and then you found asbestos in an Italian blend, 17 how is that diagnostic of North Carolina or Willow 18 Creek? 19 A. Well, 12 out of 13 Italian, Willow Creek, 20 Montana blend, I think those -- 10 out of 10 is 12:42 21 just chrysotile. And I believe the Italian and 22 Beaverhead and Montana blind -- blend -- not 23 blind -- is all chrysotile. 24 So that's a good point; you know, which of 25 the mines -- which of the two mines there in the 12:42</p> <p style="text-align: right;">Page 441</p>
<p>1 Q. Okay. And you didn't actually produce 2 your -- your Avon testing; correct? You just 3 refer to it here? 4 A. That's correct. 5 Q. In paragraph 20, you talk about testing 91 12:39 6 Colgate Cashmere Bouquet containers? 7 A. Correct. 8 Q. And you had an understanding that -- that 9 the talc in those Colgate Cashmere Bouquet 10 containers came from different mines over time? 12:40 11 A. Correct. 12 Q. And you have this table in the middle 13 there, "Containers by Ore Source." 14 Do you see that? 15 A. You will have to show it. There's nothing 12:40 16 on the screen. 17 Q. Oh, sorry. I forget you don't have it. 18 A. I've got "iPad 94" and "Early 2," which I 19 was curious who that is. 20 Q. Here we go. 12:40 21 A. Okay. There we go. 22 Q. Are you familiar with this table here? 23 And I'll let you -- sorry. So you can 24 read the... 25 A. Correct. 12:41</p> <p style="text-align: right;">Page 440</p>	<p>1 last two is more likely than not to have all the 2 chrysotile in it. I would say more likely than 3 not, Willow Creek/Montana versus in 4 Beaverhead/Montana blend, five out of five, but I 5 can't say it within a reasonable degree of 12:42 6 scientific certainty. 7 Q. Right. I mean, when you know that one has 8 chrysotile -- you've tested one that has 9 chrysotile in it and then you blend it with 10 others, it could either be that one or, 12:42 11 potentially, the others, but you can't rule out 12 it's only the one; right? 13 A. In the last two, I would say more likely 14 than not. I know Italian does have some 15 chrysotile in it, but I know also Willow Creek, 12:43 16 Montana, and Beaverhead also has -- I think more 17 prone to have chrysotile in it than amphiboles. 18 So... 19 Q. You have -- you have the Beaverhead and 20 Willow Creek. What is your -- and there are five 12:43 21 other mines; right? So there's -- I think there's 22 -- what are the -- what are the mines that -- 23 what's your understanding of the mines that could 24 potentially -- 25 A. You've got Treasure. 12:43</p> <p style="text-align: right;">Page 442</p>

<p>1 Q. Here it is.</p> <p>2 A. You have got --</p> <p>3 Q. Sorry.</p> <p>4 A. You've got Beaverhead. I'm trying to</p> <p>5 think of the other two off the top of my head. 12:44</p> <p>6 (Reporter clarification.)</p> <p>7 BY MR. RISING:</p> <p>8 Q. Let me clarify so we have a clean record.</p> <p>9 A. Historically, you have got one, two,</p> <p>10 three, four, five mines; Willow Creek, Regal, 12:44</p> <p>11 Treasure, Beaverhead, and Yellowstone.</p> <p>12 Q. So it's your opinion that if cosmetic talc</p> <p>13 came from Montana at any point in time, it must</p> <p>14 have come from Yellowstone, Beaverhead, Treasure,</p> <p>15 Regal, or Willow Creek mines? 12:44</p> <p>16 A. Depending on what the manufacturer said,</p> <p>17 yes.</p> <p>18 Q. Do you know if there were any other mines</p> <p>19 producing cosmetic talc in Montana in the 1950s or</p> <p>20 '60s -- 1950s, '60s, '70s? 12:45</p> <p>21 A. Not that I am aware of. If you know one</p> <p>22 other, I'd like to know.</p> <p>23 Q. Well, here, we're relying on Mr. Mobley's</p> <p>24 testimony about potentially getting their product</p> <p>25 from Montana, and that's all we have to go off of. 12:45</p> <p style="text-align: right;">Page 443</p>	<p>1 They get field trips to China. My client</p> <p>2 never offered to send me over to one of those.</p> <p>3 Q. Sir, let me just walk through this really</p> <p>4 quick and see if you can tell me.</p> <p>5 For the Yellowstone mine, what products 12:46</p> <p>6 have you tested that you understand came from the</p> <p>7 Yellowstone mine?</p> <p>8 A. Well, I can't recall now. But, again,</p> <p>9 it's my opinion it doesn't matter which one it</p> <p>10 comes from. But at least each one of the mines 12:47</p> <p>11 where we have tested a product, we find the same</p> <p>12 thing.</p> <p>13 When I did the -- you know, the retains</p> <p>14 and I have to look where the different retains</p> <p>15 came from, refined chrysotile. 12:47</p> <p>16 So in my opinion, it's all under one</p> <p>17 geological condition. It's all the same. Doesn't</p> <p>18 matter what mine it comes from, in my opinion.</p> <p>19 Q. Well, let me just walk through. I</p> <p>20 understand that. 12:47</p> <p>21 You have tested from Beaverhead; right?</p> <p>22 Because that was the Avon; correct?</p> <p>23 A. Treasure, Beaverhead. Cyprus did</p> <p>24 Yellowstone. I would have to look back where Gold</p> <p>25 Bond was getting theirs. 12:47</p> <p style="text-align: right;">Page 445</p>
<p>1 Right? So that's why you are walking through the</p> <p>2 five different mines; correct?</p> <p>3 A. I'm sorry. Could you repeat that? I</p> <p>4 apologize. I just didn't follow it.</p> <p>5 Q. Yeah. 12:45</p> <p>6 Here, there was -- there was a -- there</p> <p>7 was a deposition of a gentleman in Prudencio,</p> <p>8 Mr. Mobley.</p> <p>9 A. Oh, that's correct.</p> <p>10 Q. Right. And what he said was his 12:45</p> <p>11 recollection that -- do you recall this, that his</p> <p>12 recollection was that 85 percent of our talc came</p> <p>13 from Montana, but no specific mine, or China;</p> <p>14 again, no specific mine -- 15 percent from China,</p> <p>15 no specific mine? 12:46</p> <p>16 Do you recall that?</p> <p>17 A. Yes, in -- well, for China, there's only</p> <p>18 one region from it all comes from, and it's all</p> <p>19 the same. I mean, manufacturers would be at</p> <p>20 different mines there in that range. 12:46</p> <p>21 And just in J&J, we probably analyzed 40,</p> <p>22 50, 60, 70 -- something like 70, 80 bottles,</p> <p>23 something like that, samples either from</p> <p>24 containers or from mine retains that were</p> <p>25 collected either by Segrave or Sanchez. 12:46</p> <p style="text-align: right;">Page 444</p>	<p>1 Q. Not sure about Regal?</p> <p>2 A. I just don't recall right now.</p> <p>3 Q. When you say Cyprus Mines, you're</p> <p>4 referring -- are you referring to the</p> <p>5 Johns-Manville testing? 12:48</p> <p>6 A. They did their own testing.</p> <p>7 Q. Have you produced that testing in this</p> <p>8 case?</p> <p>9 A. It's either Cyprus or -- oh, Cyprus or</p> <p>10 Pfizer. No. Have I produced that? I don't think 12:48</p> <p>11 so.</p> <p>12 Q. What you've produced in this case is</p> <p>13 testing from -- I guess you haven't produced the</p> <p>14 testing.</p> <p>15 But what you were relying on is a 12:48</p> <p>16 reference to testing of Avon -- and you have some</p> <p>17 data from that that you have in this</p> <p>18 declaration -- and then the Cashmere Bouquet;</p> <p>19 right?</p> <p>20 A. Correct. As well as our own. I didn't 12:49</p> <p>21 put anything in there about Gold Bond at the time.</p> <p>22 That's all Montana, from their retains, et cetera.</p> <p>23 So anyway.</p> <p>24 Q. Are you -- are you aware of any -- any</p> <p>25 published peer-reviewed article that finds that 12:49</p> <p style="text-align: right;">Page 446</p>

<p>1 there is various asbestiform talc, whether it be 2 chrysotile or amphibole asbestos, in all talc 3 samples that are mined -- that are mined for 4 Montana? 5 A. I don't know if anybody has published 12:49 6 that. 7 But I know geologically, I've not -- you 8 know, Mickey Gunter said it was all the same; 9 you're going to have the same talc from one to the 10 other. 12:50 11 I think Segrave, even though he say 12 there's -- I think they both say there's no 13 asbestos in there, but they don't say anything -- 14 that there's some sort of different geological 15 conditions from one to the other. 12:50 16 If you ever look at a picture of them, you 17 can see them all right next to each other. 18 Q. Okay. But as I understand it, your 19 opinions with respect to Safeway in this case 20 aren't necessarily dependent on this -- this is an 12:50 21 example of what you might use if Safeway is 22 actually from Montana, but in your opinion, the 23 fact that Safeway sold any talcum powder product 24 means that that talcum powder product had some 25 level of asbestos in it; is that correct? 12:51 Page 447</p>	<p>1 at least two orders of magnitude higher. 2 Q. And so that -- that opinion would apply to 3 any cosmetic talc sold by any retailer, large or 4 small, in the United States at any point in time; 5 correct? 12:53 6 A. Yes. But just to make it careful, it's 7 the -- I'm not aware of any other mines than I've 8 already stated in the United States and I'm not 9 aware of any other mines for cosmetic talcs in 10 Europe or Asia such as Chinese, such as Italian, 12:53 11 such as France, such as Brazil, and such as India. 12 Q. But North America, you're -- are you 13 confident in saying that there's asbestos in every 14 bottle of cosmetic talc that was sold at any time 15 in North America? 12:54 16 A. Any bottle that was sold in North America 17 that used a mine source for cosmetic talc in North 18 America will have some level of asbestos in it, 19 and it just depends on the detection limit is -- 20 if we can find it or not. So it's all about 12:54 21 detection limits. 22 Q. Okay. But let me take that a little bit 23 further. 24 Do you have an opinion as to what 25 percentage of that talc is at a detection limit 12:55 Page 449</p>
<p>1 A. It's the same opinion that I've been 2 stating, is any mine source that cosmetic talc was 3 sourced from for any of the mines in the -- in 4 North America will have some level asbestos in it. 5 It's just a matter of detection limits. 12:51 6 Q. And now let's translate that to bottles. 7 Does that mean that, in your opinion, any bottles 8 of talcum powder sold by Safeway at any point in 9 time that contained cosmetic talc will -- the 10 bottles themselves -- each bottle will have some 12:51 11 level of asbestos in it? 12 A. Any container sold by Safeway that has 13 cosmetic talc in it is going to have asbestos in 14 it. However, it's a matter of detection limit; 15 you know, can we see it with the detection limits 12:52 16 we have? 17 But in my opinion, there's no such thing 18 as a clean mine, that there is no asbestos in it. 19 That's never been proven. You'd have to have a 20 detection limit down to, by TEM, one fiber, 12:52 21 meaning one fiber per gram or ten fibers per gram. 22 You know, our TEM detection limit right 23 now on amphiboles, the best we have is about 5,000 24 to 6,000, 4,000, 3,000 versus the detection limit 25 that most other labs who do this work has that is 12:52 Page 448</p>	<p>1 where you could find it? 2 A. Well, if you look at our overall positives 3 from the different mines, it's typically running 4 anywhere from, I think, a low of 75 percent or so 5 on average of positives up to a hundred percent 12:55 6 positive, depending on what we are looking for. 7 Q. And -- and you believe you've tested -- 8 you've tested cosmetic talc from every mine source 9 in North America? 10 A. Yes, sir. 12:55 11 Q. Okay. 12 A. Either I or what others have. So 13 that's -- you know, that's my ongoing opinion. If 14 you -- but it depends on the detection limit. 15 If you have something by TEM that has -- 12:56 16 you have to have a detection limit of a thousand 17 fibers or bundles per gram, we are not going to 18 see it yet, or 2,000 for fibers and grams. But it 19 gets up in the 4- or 5,000 range and as long as -- 20 as long as we can hit that detection limit -- 12:56 21 But in order to really quantify it is -- 22 we'd have to get a much better detection limit, 23 and so far, that doesn't exist. 24 Q. And wouldn't you have to actually test 25 some -- some bottles of the talc from the actual 12:56 Page 450</p>

<p>1 manufacturer -- or from the actual supplier? So 2 wouldn't you have to test some Safeway baby powder 3 to confirm your theory? 4 MR. REID: Assumes facts. Overbroad. 5 THE WITNESS: No. If we -- if we had 12:56 6 containers -- say we had ten containers. It would 7 be my opinion more than half of them, we would 8 find positive for some type of asbestos, even if 9 they're all from Montana. 10 BY MR. RISING: 12:57 11 Q. And in order to test that -- do you have 12 this -- 13 First of all, did you produce all -- I 14 assume this was test -- did you produce all 15 testing for all mines in North America and all -- 12:57 16 and reference all secondary sources that you would 17 be relying on to make that opinion in this case? 18 A. Well, that's five and a half years' worth 19 of work, close to, you know, 400 and change of 20 samples that have been sourced for every one of 12:57 21 the mines. No, I haven't produced all that. 22 Q. And other than the declaration that we 23 marked as Exhibit 23, do you have anything -- and 24 Exhibit 6, which is your exposure notes, and 25 Exhibit 4, which is your deposition notes report, 12:58 Page 451</p>	<p>1 something that proves me wrong. 2 BY MR. RISING: 3 Q. You understand you're representing -- 4 you're testifying on behalf of the plaintiff in 5 this case, Dr. Longo? 13:00 6 A. I understand. 7 Q. And you understand that plaintiff has the 8 burden of proof in this case? 9 MR. REID: Calls for a legal conclusion. 10 THE WITNESS: Well, I'm not an attorney. 13:00 11 I'm just telling you the work we've done. So I -- 12 let's -- you know, you're asking me questions on 13 why. I'm telling you why. 14 So it's not clear to me that -- that the 15 amount of documentation that I would have to 13:00 16 produce would be literally almost 400 -- over 400 17 separate analysis that would fill this desk and be 18 nothing different than what you have already seen, 19 except it would just be a bunch more. 20 BY MR. RISING: 13:00 21 Q. But you would agree that the -- you're 22 relying on that to provide your opinion with 23 respect to Safeway in this case? 24 A. Well, that's a "yes" and "no." I'm 25 relying on everything I've stated here, but that's 13:01 Page 453</p>
<p>1 do you have anything -- any opinions written 2 down -- are there any opinions outside of those 3 three documents that you are providing with 4 respect to Safeway, other than this opinion that 5 all mines in North America contain asbestos? 12:58 6 MR. REID: Ignores former testimony. 7 Overbroad. Assumes facts. 8 THE WITNESS: You know, I think over the 9 last few hours, we've covered all my opinions 10 about asbestos in the North American cosmetic talc 12:58 11 mines as well as what some would say are the 12 industrial talc mines. 13 BY MR. RISING: 14 Q. And you would agree that for me to test 15 that opinion, Dr. Longo, I would need to see all 12:59 16 of the testing, all of the backup, all of the 17 documents that not only indicate the results of 18 the testing, but what you tested and where -- and 19 the mine source that it came from in order to test 20 your opinion? 12:59 21 You agree with that? 22 MR. REID: Assumes facts and overbroad. 23 THE WITNESS: My answer would be no. This 24 is my opinions, and it's based on all this work. 25 You know, show me -- show me data that -- show me 12:59 Page 452</p>	<p>1 just more confirmation about my opinions are 2 correct. 3 Q. Are you prepared at trial to -- to sit 4 down and show -- and walk the jury through all the 5 information that you rely on for each mine in 13:01 6 North America, including each mine in Montana, to 7 show them everything that you rely on with respect 8 to forming an opinion that any bottle of talc that 9 comes out of that mine has some level of asbestos 10 in it? 13:01 11 MR. REID: Hold on. 12 Early, could I have that question read 13 back. 14 (Record read by the court reporter.) 15 MR. REID: Overbroad. Assumes facts. 13:02 16 THE WITNESS: I think that would be about 17 a week of testimony. I'm not sure I'm scheduled 18 to do that. 19 I'm prepared to tell the jury just what I 20 have told you. I'm prepared to provide this 13:02 21 information that we have on here and why I believe 22 this. But you, obviously, have an opportunity to 23 cross-examine me and point out what you believe 24 are all the defects in my opinions. 25 BY MR. RISING: 13:02 Page 454</p>

<p>1 Q. And I just want to make -- I just want to 2 make it clear, Dr. Longo, that part of what you 3 are relying on to form these opinions is testing 4 that you've done on what you call over 400 bottles 5 of -- of cosmetic talc, and you have not provided 13:02 6 that -- the results of that testing or any 7 evidence that the bottles actually come from a 8 particular mine for me to review in advance of 9 this deposition.</p> <p>10 A. No, I'm not relying on these 400. I'm 13:03 11 just answering your questions. They -- they 12 confirm what I've been telling you. So I don't 13 know what else to tell you.</p> <p>14 Q. Have you told me everything -- all -- have 15 you provided to me all of your opinions with 13:03 16 respect to Safeway that you intend to offer in 17 this case?</p> <p>18 MR. REID: Overbroad.</p> <p>19 THE WITNESS: As I stated earlier about 20 Montana -- and, certainly, Chinese, we have the 13:03 21 same -- the same thing, as most all the Chinese 22 that we have done is J&J. They may be happy to 23 share it all with you. I don't know.</p> <p>24 But I've given you my basic opinions, you 25 know, as I sit here now. I hope I've covered them 13:04 Page 455</p>	<p>1 in their discovery as well as others that have 2 used Chinese, such as Chanel from about the year 3 2001 on; Avon -- I forget what year on. Let's see 4 who else. There may be a few others.</p> <p>5 That's the ones I can think of off the top 13:06 6 of my head.</p> <p>7 Q. Have you produced the J&J information, the 8 Avon information, or the Chanel information that 9 you just referenced to me -- to us in this case?</p> <p>10 MR. REID: Overbroad, assumes facts, and 13:06 11 calls for a legal conclusion regarding 12 obligations.</p> <p>13 THE WITNESS: The same answer as with all 14 our Montana things that you asked me about.</p> <p>15 BY MR. RISING: 13:06</p> <p>16 Q. Well --</p> <p>17 A. -- which would be no.</p> <p>18 Q. -- for information that you've gotten from 19 a specific manufacturer, that's not publicly 20 available information that we can go get; correct? 13:06 21 We would have to go to that manufacturer?</p> <p>22 A. I mean, I don't know. I guess.</p> <p>23 Q. All the information that you were 24 provided, you were provided in litigation; 25 correct? 13:07 Page 457</p>
<p>1 all. 2 BY MR. RISING: 3 Q. Oh, I had another question for you. Are 4 you -- is -- are the mines that J&J gets its talc 5 from in China, are those the only mines that 13:04 6 produce cosmetic talc in China, or have produced 7 cosmetic talc in China at any point in time?</p> <p>8 A. Well, it's the Guangxi region, and there's 9 probably five mines there. But those five mines 10 have all the same product in it because it's the 13:04 11 same issue with the -- with th Guangxi region that 12 it is with Montana; it's all in the same belt. So 13 it's -- you know, J&J has used a number of the 14 different ones in Guangxi, and so has others, but 15 it's all the same. 13:05</p> <p>16 Q. And my question is -- like, I understand 17 where J&J gets its talc from -- is there any 18 other -- is it your opinion that those are the -- 19 that's the only talc that comes out of China and 20 has come out of China at any point in time? 13:05</p> <p>21 A. It's the only mines where manufacturers 22 have gotten their cosmetic talc.</p> <p>23 Q. And what's your basis for that 24 understanding?</p> <p>25 A. Information provided by Johnson & Johnson 13:05 Page 456</p>	<p>1 A. Well, from -- the actual documents from 2 different manufacturers, yes. I'm not sure I 3 would have been very successful at contacting them 4 directly.</p> <p>5 Q. And do you have any reason to believe that 13:07 6 I would be any more successful in contacting them 7 directly on behalf of Longs?</p> <p>8 A. I mean, aren't you defense attorneys in 9 this litigation some sort of brotherhood; share 10 and share alike? 13:07</p> <p>11 Q. I don't know if that's true. Let me --</p> <p>12 A. You don't know that's true? Oh, man. 13 That's not...</p> <p>14 Q. But at any rate, you haven't -- you 15 haven't provided that. That's not part of your 13:07 16 file in this case; correct?</p> <p>17 MR. REID: Vague and ambiguous as 18 to "file."</p> <p>19 THE WITNESS: Well, I didn't know if it 20 was necessary or not. 13:08</p> <p>21 BY MR. RISING: 22 Q. You understand that every time you give a 23 deposition that you're expected to provide the 24 file of documents and information that you are 25 relying on; correct, Dr. Longo? 13:08 Page 458</p>

<p>1 MR. REID: Calls for legal conclusion, 2 assumes facts regarding obligations. 3 THE WITNESS: I have what I am relying on. 4 I have provided it. 5 BY MR. RISING: 13:08 6 Q. Okay. 7 A. I can't anticipate what questions you may 8 ask that somehow -- I didn't know that, you know, 9 you wanted -- that somebody would actually ask for 10 every analysis we've ever done in cosmetic talcs 13:08 11 for the different sources. 12 And I have been giving this opinion for a 13 while now, so I don't know what depositions of 14 mine you may have read or not. So, you know, I 15 can't -- you know, I'm not -- I'm not an attorney. 13:08 16 So all -- I can only provide what I think is 17 necessary. 18 Q. Let's move -- oh, Dr. Longo, you don't 19 have any opinions with respect to any store-brand 20 talcum powder sold by Lucky; correct? 13:09 21 A. If Lucky sold store-brand talcum powder, I 22 wouldn't have any opinions about Lucky itself on 23 what they were responsible for, for who knew what 24 when about asbestos, or should they have put 25 warnings on, et cetera. 13:09</p> <p style="text-align: right;">Page 459</p>	<p>1 A. And information, you know, we received 2 over -- you know, from different manufacturers on 3 their source as well as the sources from the 4 distributors, where they bought a lot -- you know, 5 where they purchased the talc, what their source 13:11 6 was, you know, Whitaker, Clark & Daniels or 7 others. 8 Q. And just to be clear, none of that was 9 produced as part of your file that you produced 10 for your deposition in this case; correct? 13:11 11 A. That is correct. But you ask me, and I 12 tell you, and, you know, now that -- we are up to 13 an ungodly amount of paperwork. 14 Q. I understand. 15 A. I mean, it would have been a lot easier, 13:11 16 of course, that other than person most 17 knowledgeable just saying Montana had actually 18 given where in Montana. It would have been easier 19 to deal with that, or, you know, China. But 20 that's not something we got from -- from the 13:11 21 information from the actual company. 22 Q. I want to move on to the Longs Baby Powder 23 analysis. 24 A. Oh, I thought we had gone -- I thought we 25 got through that. Okay. I'm just kidding with 13:12</p> <p style="text-align: right;">Page 461</p>
<p>1 I have containers I have purchased from 2 Lucky's, such as Johnson's Baby Powder. I'm 3 only -- I'm only interested in what they're 4 selling, and it doesn't matter where it came from. 5 It doesn't matter if the container came from 13:09 6 Lucky's or Rite-Aid or whoever. 7 Q. And my question is a little -- I guess let 8 me put a finer point on it. 9 You haven't tested any Lucky store-brand 10 baby powder and don't have any opinions about 13:10 11 testing of Lucky store-brand baby powder that you 12 are providing in this case; correct? 13 A. I'm not aware that Lucky's made a 14 store-brand baby powder. However, hypothetically, 15 if they did, I would have the same opinions about 13:10 16 the store-brand baby powder that I have with 17 Safeway; if it was from some mine in North America 18 or the mine in South America, I would have 19 opinions that, yes, it more likely than not would 20 have asbestos in it. 13:10 21 Q. And, again, that's based on documents that 22 you have showing the mine sources for -- for each 23 of the cosmetic talc samples that you've tested 24 over time, and that -- that's in excess of 25 400 bottles; correct? 13:10</p> <p style="text-align: right;">Page 460</p>	<p>1 you. 2 Q. Do you have that in front of you? Can you 3 pull that binder back out? 4 A. Excuse me? 5 Q. Can you pull that Longs Baby Powder 13:12 6 analysis back out, and we'll kind of walk through 7 it? 8 A. Sure. 9 Q. Just to make clear for this, this was -- 10 this was provided in Prudencio, which is a 13:12 11 different case, and it has a -- I think it's at 12 page -- starting at page 23, it has potential 13 asbestos exposure to the use of Longs Baby Powder 14 containers. That's all related to a different 15 plaintiff, isn't relevant to this case; is that 13:13 16 correct? 17 A. Yes. I mean, you could take -- based on 18 this analysis, you could take "Christina 19 Prudencio" out and put, you know, "Mr. Eagles" in 20 there. It doesn't change anything. 13:13 21 Q. So you're fine just to take one 22 plaintiff's exposure analysis from one case, cross 23 out the name, put in another plaintiff in the 24 current case, and that's the exposure analysis? 25 A. Well, the exposure analysis is based on 13:13</p> <p style="text-align: right;">Page 462</p>

<p>1 our results. It's not as cavalier as saying, "I'm 2 going to cross out one versus the other." It 3 doesn't change the analysis, one individual using 4 this product versus another individual. So the 5 analysis doesn't change. 13:14 6 Q. Well, don't different people -- didn't you 7 do a different exposure analysis in this case? 8 MR. REID: Assumes facts and overbroad. 9 THE WITNESS: Hold on. Oh, god. I hate 10 this. 13:14 11 BY MR. RISING: 12 Q. That's the problem with those big binders, 13 Dr. Longo. 14 A. I know. And it needs to be changed out. 15 So... 13:14 16 Q. I'm not going to go through that, but is 17 it your opinion in this case that we can just 18 cross out a plaintiff in a different case who 19 was -- had a totally separate experience with 20 Longs Baby Powder and just write in "Mr. Eagles"? 13:15 21 A. I don't recall how often, you know, the 22 Prudencio -- in Prudencio that this was used as 23 compared to the -- compared to the Johnson's Baby 24 Powder analysis, but the analysis of these 15 25 samples do not change. 13:15</p> <p style="text-align: right;">Page 463</p>	<p>1 THE WITNESS: I don't remember what 2 happened, you know, over two years ago. The 3 opinions are based on this data that -- from the 4 people that I have trained over the years and in 5 charge of. So the data itself and all the 13:17 6 pictures and the -- and how much, et cetera. You 7 know, I review every piece of data in here, unless 8 I missed something. 9 But I couldn't tell you now -- probably 10 did, but I couldn't tell you now if, in fact, I 13:18 11 sat down and took a look through the microscope on 12 any of these. 13 It wouldn't be to base my opinion on 14 anything. My opinion -- it would be, right at 15 that moment, what is my opinion -- what is my 13:18 16 reaction to what I am looking at? Is that 17 something that is -- that I would call chrysotile 18 or I would call fibrous talc or I would call -- 19 you know, if it happens to be on the amphibole 20 side, I would call tremolite or anthophyllite or 13:18 21 what have you. 22 BY MR. RISING: 23 Q. And when Mr. Hines was walking you through 24 some of the slides in the Longs report, with 25 several of them, you said, "I'm not -- if we could 13:18</p> <p style="text-align: right;">Page 465</p>
<p>1 If you would have asked me without looking 2 at that and say, "What is your opinion about 3 that," I would have said that, you know, 4 "Mr. Eagles would have had a significant exposure 5 over background based on these results." 13:16 6 Q. Let me ask you just about -- now, first of 7 all, you don't recall -- is there any way to tell 8 from looking at one of your reports whether you 9 actually looked at the samples at issue; meaning, 10 you looked -- you sat down at the microscope and 13:16 11 looked at the samples? 12 A. I don't sit down from start to finish to 13 analyze anything like this. I do sit in, and when 14 there is a question, you know, "What do you think 15 of this; is this something that -- that you 13:16 16 feel -- you know, is it in the range," that sort 17 of thing -- but no, I don't sit down and do from 18 the start to finish analysis for PLM or -- 19 Q. I understand start-to-finish analysis, but 20 do you -- but as you sit here today, do you recall 13:17 21 whether or not you actually looked at, through the 22 microscope, the Longs Baby Powder in order to form 23 your opinions about Longs in this case? 24 MR. REID: Overbroad, assumes facts, 25 incomplete hypothetical. 13:17</p> <p style="text-align: right;">Page 464</p>	<p>1 look through the microscope, I could show you 2 better where -- why these were bundles or why they 3 had splayed ends" or something to that effect. Do 4 you recall that? 5 A. I recall it, but that's not what I -- what 13:19 6 I said was -- 7 And this was one tremolite structure 8 where -- out of -- I don't know -- maybe over a 9 thousand data -- thousand different pictures -- 10 hundreds and hundreds of pictures and 13:19 11 photomicrographs. And it was only one, and -- and 12 it was one tremolite bundle where it was pretty 13 thick, but you had to look -- you had to look and 14 see those corners. 15 But you're always -- it's easier when 13:19 16 you're sitting there at the microscope because you 17 can change the focal plane, you can go up in 18 higher mag, et cetera -- 19 And the individual who did this work is an 20 incredibly experienced TEM analyst, so I don't 13:20 21 have any problem with it -- but I can still see 22 the indication that is, in fact, a bundle. 23 Q. And that kind of brings me to the point. 24 You mentioned these kind of fancy microscopes that 25 you have, the Leica ones. I think I've seen them 13:20</p> <p style="text-align: right;">Page 466</p>

<p>1 in a number of your reports. When did you first 2 get those?</p> <p>3 A. We must have got them right around -- 4 just -- I mean, not too far from this analysis 5 because the -- I can see that how it's set up, as 13:20 6 I recall. And I'd have to check for sure, but I'm 7 pretty sure these are the new scopes -- or new 8 scope that was used here.</p> <p>9 Q. And so you're -- what the viewer is kind 10 of seeing when they're looking at these images of 13:21 11 what -- what you're opining is either chrysotile 12 asbestos or tremolite asbestos, it depends on the 13 quality of the microscope; is that fair to say?</p> <p>14 MR. REID: Misstates. Mischaracterizes.</p> <p>15 THE WITNESS: Just give me a second. I 13:21 16 want to see...</p> <p>17 I'm just looking to see if we actually...</p> <p>18 BY MR. RISING:</p> <p>19 Q. If you look at page 12 of 33.</p> <p>20 A. Well, I just want to look and see if -- 13:21 21 you know, I have to look when these microscopes 22 were installed.</p> <p>23 Okay. Page 12. I'm sorry.</p> <p>24 Q. You just have this reference, there. It 25 says, "At MAS, we have new Leica DM4 P" -- 13:22 Page 467</p>	<p>1 provides a truly white light instead of some of 2 the yellows -- a slight yellowness you can get 3 with tungsten lights.</p> <p>4 It has a very high-resolution camera built 5 into the microscope, as well as it comes with a 13:24 6 very high- resolution monitor so that it allows 7 you to see some of the structures a little bit 8 better.</p> <p>9 For example, you know, you look at 10 Segrave's PLM analysis in this case and then look 13:24 11 at ours, the resolution that we have is such a 12 higher quality, especially at the -- you know, the 13 400X or the 600X, on what we can see.</p> <p>14 So, to me, it's a much more precise PLM 15 microscope. It's like anything else; when, you 13:24 16 know, new technology comes along where you get 17 better resolution, better objective lenses, you 18 know, it's just -- we try to keep up with the 19 advances in the techniques that -- advances in the 20 equipment. 13:25</p> <p>21 Q. And how is it that -- how is it that the 22 jury -- when you present this to a jury, how is it 23 that the jury can be sure that they're seeing what 24 you were seeing -- or what your analysts were 25 seeing when they looked through the microscope? 13:25 Page 469</p>
<p>1 A. Oh, okay, yes. These were fairly brand 2 new at the time.</p> <p>3 Q. And it talks about it's equipped with 4 certain things. So, like, the -- which I think 5 is -- you're saying is important to be able to 13:22 6 see.</p> <p>7 In particular, for your chrysotile 8 testing, your heavy liquid density separation, 9 you've -- you've opined that it is important to 10 have a microscope that's at or above the quality 13:22 11 of the microscopes that you utilize; correct?</p> <p>12 A. It makes it very -- it makes it easier. 13 We were finding chrysotile before we got these new 14 microscopes, but in order to really help us, we 15 purchased a -- what they call flat or infinity 13:23 16 lens, 4- -- I think at 4- -- 400X. But at that 17 time, for that -- it's an old Olympus.</p> <p>18 But this particular manufacturer made flat 19 objective lenses or infinity lenses not only for 20 the higher magnification but the 10X central-stop 13:23 21 dispersion lens, which makes a big difference in 22 being able to see some of the smaller structures 23 and still be able to do dispersion staining and be 24 able to get the appropriate colors.</p> <p>25 Also, it has an LED light source that 13:23 Page 468</p>	<p>1 A. Because we'll have pictures of it. And, 2 also, the jury will be able to understand how 3 much -- how technology gives you much better 4 resolution by just comparing Mr. Segrave's 5 photographs with ours. And also can show how 13:25 6 Mr. Segrave's PLM analyst is misidentifying stuff.</p> <p>7 Q. And I'll get to that in a second.</p> <p>8 But can you turn -- turn to page -- 9 page 27 with your Table 1.</p> <p>10 A. I have to take deep breaths before I throw 13:26 11 this thing across the room. I've got to give it 12 to my -- to somebody to get me a new one of these 13 that doesn't screw up on me.</p> <p>14 Okay. I'm at Table 1.</p> <p>15 Q. Just initially, this has -- this has 13:26 16 the -- the sample number, the product, the size. 17 And you have here "Size of JBP containers."</p> <p>18 Do you mean -- is that a typo?</p> <p>19 A. Oh. Of course.</p> <p>20 Q. Are you certain, or did you potentially 13:26 21 mix up Johnson's Baby Powder testing with Longs 22 Baby Powder testing?</p> <p>23 A. No. It says, "Source of container" down 24 the right-hand side, "Longs Drugs."</p> <p>25 No, I'm sure I grabbed that from another 13:27 Page 470</p>

<p>1 report just to have the stuff going across, and 2 it's always one or two or three typos. 3 Q. And then you have here, "Year of 4 manufacture." 5 That doesn't really apply to the 13:27 6 information you have here; correct? 7 A. I'd have to get to the containers and the 8 affidavits to see what they said, when they may 9 have purchased it. 10 So I've forgotten where that information 13:28 11 came from, but it may well be in the container. 12 Q. And I'll represent to you that it came 13 from the declarations. But what I am saying is, 14 it doesn't really give you a year of manufacture. 15 It just gives you a range for when these people 13:28 16 could have potentially -- they believe or recalled 17 they could have potentially purchased it? 18 A. Yeah. Unless it's on the container, that 19 is correct. 20 Q. So -- and we saw earlier that Mr. Eagles 13:28 21 used however many bottles of Longs Baby Powder, 22 according to his deposition testimony, through 23 sometime in the 1980s. So there's not really any 24 of these that's more likely than not from a time 25 period that Mr. Eagles used Longs Baby Powder; 13:28 Page 471</p>	<p>1 have been in 1990s or 2000s; right? 2 A. Could have been in the 1990s; could have 3 been in the 2000s, 1980s. 4 Q. We just don't know; right? 5 A. Again, we don't know, but it is an issue 13:30 6 without -- to me, without consequences. 7 Q. Well, to the extent that the jury wants to 8 put any weight on the fact that we did or did not 9 test bottles from a time period that Mr. Eagles 10 could have even purchased them, none of these 13:30 11 bottles is from that -- from a time period 12 necessarily; right? 13 MR. REID: Argumentative. Assumes facts. 14 Vague, ambiguous, and calls for a legal 15 conclusion. 13:31 16 THE WITNESS: Again, I would -- hopefully, 17 what I could tell the jury is that the mine source 18 is more important than what the dates are. So the 19 ones we have dates on, as long as we have the 20 similar -- the same mine source, it doesn't -- to 13:31 21 me, it doesn't matter. But, you know, that's up 22 to the jury to decide. 23 BY MR. RISING: 24 Q. And you'd want to have good evidence of 25 the mine source? For example, like, with the 13:31 Page 473</p>
<p>1 correct? 2 A. I don't know about more likely than not. 3 You know, he said '80s, some in the '90s. But, 4 again, if it is all from some combination of 5 Montana and Chinese, it really doesn't matter. 13:29 6 Q. Well, and let me -- but I just want to 7 make clear here, you did say -- he did say that he 8 stopped using Longs Baby Powder in the 1980s; 9 correct? That was at least according to his 10 deposition testimony. We've already went through 13:29 11 that? 12 A. I believe it may have been 1980s. If it's 13 in 1980s, that's fine. 14 Whatever the mine source is through 15 here -- I'm sure I have it somewhere, what the 13:29 16 mine source is -- it really doesn't matter. 17 Q. And you have -- you have nine of these 18 bottles that don't have any date whatsoever; 19 right? 20 A. Correct. 13:30 21 Q. And then -- and then one is after 1987, so 22 it's possible that he could have -- it's a bottle 23 representative of a time period that he could have 24 purchased a bottle, but it's also more likely than 25 not, given that it's just after, that it could 13:30 Page 472</p>	<p>1 Avon, you have the actual formula; right? 2 MR. REID: Vague, ambiguous as to "good 3 evidence." 4 THE WITNESS: Well, it would be nice if 5 Longs provide their formulas. So why would I have 13:31 6 more information than the manufacturer? 7 And why -- we've got the container codes. 8 Longs ought to be able to go through their records, 9 because those all -- container codes and tell you 10 exactly what date this was manufactured. But I 13:32 11 haven't seen any of that yet. 12 So you're putting a burden on me that the 13 information is right there. There's the 14 containers' codes. 15 BY MR. RISING: 13:32 16 Q. I am not putting a burden on you, 17 Dr. Longo. I'm just asking you, would you prefer 18 to have a strong link between the mine that it 19 came from, strong -- strong evidence, like -- like 20 what you believe you have for Avon? 13:32 21 MR. REID: Argumentative. Assumes facts. 22 Vague, ambiguous as to "strong evidence." 23 THE WITNESS: I believe the evidence I 24 have is strong enough. Would it be nice that more 25 information was provided from the manufacturer so 13:32 Page 474</p>

<p>1 that we wouldn't have -- even have this discussion 2 and -- so I believe the information we have is 3 plenty of evidence -- to me, strong evidence -- 4 and it will be up to the jury to decide one way or 5 the other. 13:33 6 BY MR. RISING: 7 Q. What is that information that you have 8 with respect to where the Longs Baby Powder was 9 mined? 10 A. Well, we have -- 15 containers all have 13:33 11 asbestos in them, and it's all similar. We have 12 four that have -- let's see -- one, two, three, 13 four, five, six, seven -- I think we have four or 14 five that have tremolite in them. 15 Q. Oh, and I wanted to ask you about that, 13:33 16 Dr. Longo. 17 A. And testimony is going to be that no 18 matter where you mined it from, it's going to have 19 some level of asbestos in it. 20 In this particular case, we've got 15 -- 13:33 21 we have 15 containers of yours that have asbestos 22 in them, all 15. 23 Q. And that's -- you found -- you found 15 24 that had chrysotile in all 15; correct? 25 A. Correct. 13:34</p> <p style="text-align: right;">Page 475</p>	<p>1 get all your samples out of the shaker top; right? 2 A. Correct. 3 Q. And if we look at these, do you recall 4 that you got -- you see how the MAS sample numbers 5 go 1, 2, 3, 4, and then they start over again, 1 13:36 6 through 11? 7 A. Yes. 8 Q. And that's because you received four in 9 one batch from Mr. Satterley and then the next 10 eleven in another batch from Mr. Satterley? 13:36 11 A. That is correct. 12 Q. And do you have any understanding of what 13 Mr. Satterley or his -- his employees or the other 14 attorneys who gathered and purchased these bottles 15 from their owners -- what they did with them in 13:36 16 the interim? 17 A. From the time frame they purchased them to 18 the time frame they sent them to me? 19 Q. Correct. 20 A. I would assume they're in their office 13:36 21 somewhere. 22 Q. Do you have any -- you've been to 23 Mr. Satterley's office, I assume? 24 A. Yes, sir. 25 Q. And is there a place, an evidence room or 13:36</p> <p style="text-align: right;">Page 477</p>
<p>1 Q. And then you found tremolite in five; is 2 that correct? 3 A. That is -- was it five? It may be four. 4 Q. Look at Table 2, page... 5 A. One, two, three, four, five. There. You 13:34 6 know it better than me. I thought it was four. 7 And five with tremolite in it. So... 8 Q. Now, these numbers, when you have, like, 9 the 9,320 or the 9,380, 9,330, does that indicate 10 to you that that was one fiber or what you call 13:35 11 one bundle of tremolite was found? 12 A. Yes. 13 Q. And then -- and then -- so the -- the 14 18,700, that's two fibers of tremolite? 15 A. Correct. And the 27,700 is three. 13:35 16 Q. And that would have all come from -- I 17 realize you don't shake it, but you turn it upside 18 down, and you get -- you get a couple grams out, 19 and that's how you test it? 20 A. Yes, sir. 13:35 21 Q. You don't dip down in the bottom of the 22 bottle and pull a sample from there; correct? 23 A. No. We do not -- we do not damage the 24 bottles. 25 Q. That's -- right. But you basically -- you 13:35</p> <p style="text-align: right;">Page 476</p>	<p>1 something, that you have seen where they keep 2 their sample bottles or asbestos-containing 3 products for cases that they're litigating? 4 A. I mean, I don't ask about their evidence 5 room. I know that to get in that office, you have 13:37 6 to be -- if you're not -- you've got to be 7 escorted in. You've got to be -- known that you 8 are showing up. But I don't know about any 9 evidence room or not. You have to ask 10 Mr. Satterley. 13:37 11 Q. I may. 12 But you're not aware of where 13 they would -- they sort of store their either 14 samples of talcum powder products or samples of 15 brakes? 13:37 16 I mean, first of all, it's your 17 understanding that the Kazan law firm, where 18 Mr. Satterley is, is -- they're mostly an asbestos 19 plaintiffs side law firm; right? 20 A. I would agree. 13:38 21 Q. And they -- and they have cases with all 22 different kinds of asbestos products? Do you 23 agree with that as well? 24 A. I'm sorry. Could you repeat that? 25 Q. They have cases of asbestos exposure with 13:38</p> <p style="text-align: right;">Page 478</p>

<p>1 all different kinds of products; friction 2 products, brakes, talcum powder, other products 3 that -- that people allege provided them with 4 asbestos exposures? 5 A. That's sort of broad. The last time I 13:38 6 actually received asbestos products, I mean, like 7 what you're talking about, brakes, et cetera, 8 might have been in 2015 or 2016. 9 Q. Okay. But certainly, you've received a 10 lot of talc -- cosmetic talc products from the 13:38 11 Kazan law firm -- from the Kazan law firm in the 12 last two, three years; right? 13 A. I don't know how many out of the 400. You 14 know, 15 here... so yeah, there's been a number of 15 samples. Less than -- way less than 100. 13:39 16 Q. Approximately how many from the Kazan law 17 firm since -- 18 A. I'd say less -- you know, maybe 50. 19 Q. And you just don't know one way or the 20 other how they store them at their law firm? 13:39 21 A. You know, are they sitting out? Have I 22 ever seen them when I've been there the few times? 23 No. 24 Do I think that has been anything that 25 would have been problematic about -- somehow 13:40 Page 479</p>	<p>1 of a used bottle of baby powder? 2 A. Sitting on top of a used -- you mean, 3 like, somebody has stacked two on top of each 4 other? 5 Q. No. Somebody left a bottle in a -- you 13:41 6 know, somebody left a bottle out anywhere, 7 somewhere in their garage, wherever, and it had 8 something on top of it. I'm not even saying 9 asbestos, just dust or something. How do you make 10 sure that the talc that you are shaking out isn't 13:41 11 picking that up? 12 A. Well, you have to start looking at this at 13 a practical level. If you look at our analysis 14 and then look at the size of the holes and you 15 look at how much we're finding in there per gram 13:42 16 and then how much would the whole bottle hold and 17 go, "How did that happen, that you would have that 18 concentration in some area be released and somehow 19 make its way down into holes and contaminate these 20 samples?" 13:42 21 Q. Well, in several of the samples, you 22 found just -- I'm sorry. Go ahead. 23 A. That just did not happen. Did not happen. 24 Q. But in at least three of the samples, you 25 only found one fiber; right? 13:42 Page 481</p>
<p>1 they're being tampered with or that it's sitting 2 somewhere that, magically, asbestos would get in 3 it of any sort? No. That's a brand -- that 4 building was built way after they were using any 5 asbestos products, sort of a new law office, maybe 13:40 6 in the early 2000s was built. There was no way 7 that it was contaminated by anybody. 8 Q. Well, you're testing -- they're sending 9 you cosmetic talc -- cosmetic talc bottles, and 10 you're finding asbestos in those cosmetic talc 13:40 11 bottles; right? 12 A. Correct. So it's there. 13 Q. And some of those are opened and have been 14 opened, right, when you receive them? For 15 example, all the Longs bottles; right? 13:40 16 A. Correct. 17 Q. And you'd agree that if those are not 18 properly sealed and stored together, they have a 19 possibility of cross-contaminating each other; 20 right? 13:41 21 A. No, I don't agree with that. That would 22 be impossible. 23 Q. What is it that you do to the lid 24 of the -- like, how do you make sure that you are 25 not getting anything from -- that's sitting on top 13:41 Page 480</p>	<p>1 A. Yeah, we found one fiber. But in order to 2 find that one fiber, you have to have a detection 3 limit of about 7-, 8,000 per gram. And then you 4 look at how many grams you have in there. So 5 we're talking about millions -- or hundreds of 13:43 6 thousands to get in there. 7 And where did the tremolite come from 8 without -- if it's an accessory mineral for 9 something, why not -- how come you're not finding 10 what else -- where the tremolite came from? 13:43 11 Q. So have you -- you've ruled out possible 12 contamination, for the tremolite at least? 13 A. Absolutely, as well as the chrysotile. 14 You'd have to have some source of chrysotile 15 that's being continuously released at very high 13:43 16 concentrations and somehow making its way through 17 the holes in the container because somebody left 18 it open, sitting out in the -- somewhere that 19 there's chrysotile that's being routinely 20 disturbed. 13:43 21 Q. Maybe I'm misunderstanding your test, but 22 my understanding is you did the TEM test, and you 23 found one fiber. Right? 24 A. Correct. 25 Q. And then everything else you're talking 13:43 Page 482</p>

<p>1 about is math; right?</p> <p>2 A. Well, it's your analytical sensitivity or</p> <p>3 your detection limit. And, you know, are you --</p> <p>4 is that the only fiber in the entire bottle, or is</p> <p>5 there an analytical sensitivity, where you go, 13:44</p> <p>6 "Okay, to find this, I've got to have this much in</p> <p>7 here for me to find it."</p> <p>8 Q. And -- but that's all math and formula;</p> <p>9 right? You didn't find extra fibers; you're just</p> <p>10 applying a formula, because you found one in a 13:44</p> <p>11 number of grids, based upon the amount of powder</p> <p>12 you were testing; correct?</p> <p>13 A. Yeah, how much we had tested, et cetera.</p> <p>14 It's, you know, the same thing if you go take a</p> <p>15 pint of water out of Lake Michigan and you go test 13:44</p> <p>16 it and you find ten parts per million lead. Well,</p> <p>17 they didn't test the entire Lake Michigan, but</p> <p>18 that would say is, "Well, Lake Michigan has got</p> <p>19 lead in it."</p> <p>20 All analytical chemistry, especially 13:45</p> <p>21 environmental, does this. You can't ever test the</p> <p>22 whole thing.</p> <p>23 Q. You could test it twice or three times,</p> <p>24 though, couldn't you?</p> <p>25 A. Certainly. You could test it as many 13:45</p> <p style="text-align: right;">Page 483</p>	<p>1 you a protocol to tell the difference between,</p> <p>2 quote, asbestiform and nonasbestiform.</p> <p>3 Infrared testing, that is not a method</p> <p>4 that is really recognized by anybody as being</p> <p>5 successful. 13:47</p> <p>6 And, of course, all the problems with J4-1</p> <p>7 testing protocol. Detection limits by XRD are</p> <p>8 .1 percent, best, for tremolite. Anthophyllite is</p> <p>9 about .2, .3. Chrysotile is .4, .5. So J4 is not</p> <p>10 something that is very reliable. 13:47</p> <p>11 Let's see here.</p> <p>12 Page 9, you know, it's -- Segrave uses</p> <p>13 a -- uses the EPA/R-93 TEM method, he says, and</p> <p>14 following that, to be asbestiform, it has to be 20</p> <p>15 to 1, by that TEM method. 13:47</p> <p>16 He leaves out the fact that if you go to</p> <p>17 the EPA/R-93/600 and look at the asbestos -- look</p> <p>18 at the TEM analysis -- and nobody bothers looking</p> <p>19 at what they reference for the TEM analysis. They</p> <p>20 don't reference the PLM analysis. They do not say 13:48</p> <p>21 20 to 1, to a hundred to one. What they say is,</p> <p>22 use the AHERA TEM method, which is greater than or</p> <p>23 equal to 5 to 1, et cetera. So he's wrong on that</p> <p>24 area.</p> <p>25 And I know we don't have much time, so I'm 13:48</p> <p style="text-align: right;">Page 485</p>
<p>1 times as you like.</p> <p>2 Q. And you tested it once; right?</p> <p>3 A. Yes, sir, we did.</p> <p>4 Q. I assume you looked at Alan Segrave's</p> <p>5 report, and you have some criticisms of 13:45</p> <p>6 Mr. Segrave's analysis?</p> <p>7 A. Yes.</p> <p>8 Are we done with Longs? I can put this</p> <p>9 somewhere?</p> <p>10 Q. Yeah. I'm going to make you pick it back 13:45</p> <p>11 up just to see you work out, but other than -- but</p> <p>12 yeah, you're good for now.</p> <p>13 A. Well, it's a back issue.</p> <p>14 Q. That's a big binder.</p> <p>15 A. Yes. 13:45</p> <p>16 Yes, let me -- you know, you can start on</p> <p>17 page 8. You know -- you know, he goes -- page 8,</p> <p>18 paragraph Perrigo 1, 2, 3, 4 -- 5 talks about what</p> <p>19 great analytical tests have been done.</p> <p>20 But he also talks about OSHA here, where 13:46</p> <p>21 they said, you know, only analyze asbestiform by,</p> <p>22 you know, PCM and the air samples, et cetera. But</p> <p>23 they never tell you in the protocol how to do</p> <p>24 that. They have made no -- there have been no</p> <p>25 adjustment or anything by OSHA to actually give 13:46</p> <p style="text-align: right;">Page 484</p>	<p>1 just going to go to some of the -- if we go to</p> <p>2 page 10, he talks about the FDA conducted a study,</p> <p>3 27 samples, cosmetic-grade raw talc, 34 samples,</p> <p>4 didn't find anything.</p> <p>5 The -- 2009, 2010, the detection limit 13:48</p> <p>6 there for finding one was, I think, about 10</p> <p>7 million, where ours is 5- to 7,000. It's not</p> <p>8 surprising that you're not finding anything.</p> <p>9 The New York State 1988-1 (sic) PLM and</p> <p>10 198-4 TEM is an asbestos floor tile method. 13:49</p> <p>11 Doesn't say anything about talc in it. Again,</p> <p>12 they say nothing was found.</p> <p>13 The Interagency Working Group on Asbestos</p> <p>14 in Consumer Products, he says that the white paper</p> <p>15 is currently in comment period and further 13:49</p> <p>16 specificity on the analytical approach may be</p> <p>17 forthcoming.</p> <p>18 It's not in comment period any more. They</p> <p>19 had issued their final white paper in December of</p> <p>20 2022. That method has been now kicked over to 13:49</p> <p>21 ASTM D22-07 to write the protocol. There is no</p> <p>22 more comment -- comment section that I am aware</p> <p>23 of.</p> <p>24 And, again, I'm skipping over stuff</p> <p>25 because I know we don't have a lot of time. 13:50</p> <p style="text-align: right;">Page 486</p>


<p>1 You know, same thing; infrared is -- is 2 not a technique that is sanctioned by anybody 3 other than the USP. 4 Q. Where are you at, Dr. Longo? 5 A. Oh, I'm sorry. I'm on, "Perrigo 13:50 6 relied on" -- I'm on page 14, the -- go down to 7 where you've got the little bullet points: 8 "Perrigo relied on testing supplied 9 by supplier/mining entities, and the 10 testing criteria met or exceeded the 13:51 11 requirements set forth in J4-1 method." 12 The J4-1 method has a little funny thing 13 in it I don't think people realize, that if it's 14 positive by XRD for amphiboles, then you go to 15 PLM, polarized light microscopy, what the first 13:51 16 thing J- -- the first thing they say is it must be 17 milled down to -- I think a minus 325 size, which 18 only has the probability of reducing the amount of 19 tremolite or anthophyllite asbestos, because it's 20 brittle. 13:52 21 And you don't need to mill anything. You 22 can take a raw talc sample, as long as it's not 23 rock. But anything with cosmetic doesn't need to 24 be milled anymore. 25 Again, the last bullet point: 13:51</p> <p style="text-align: right;">Page 487</p>	<p>1 We haven't done any school work, AHERA school PLM 2 work in four or five years, so they suggested we 3 drop NVLAP because we were just wasting our money 4 since they didn't have anything to look over. 5 And now we're accredited, doing the exact 13:54 6 same PLM analysis, because we get it from the 7 exact same source, by A2LA. 8 So he's really overstating here in how -- 9 "dramatically increases the likelihood of gross 10 errors." You know, that's just sort of, my 13:54 11 opinion, mind up. Our laboratory doesn't make 12 gross errors. 13 Item 2, he's right; the government agency 14 to quantify asbestos in talc -- CSM -- you know, 15 the only government agency right now that -- where 13:54 16 you have to have heavy liquid density is the State 17 of New York for looking for tremolite and 18 vermiculite. 19 But it would be hard for a government 20 agency to do this method in 1973, 1974, after 13:55 21 Johnson's -- J&- -- they developed the heavy 22 liquid density separation for chrysotile, the CSM 23 method, and after they figured out -- and I've 24 got the -- it's in the memo -- figured out that 25 the concentration method is not in the best 13:55</p> <p style="text-align: right;">Page 489</p>
<p>1 "2010, FDA tested products and talc 2 ores sourced from Montana and other talc 3 regions... no asbestos was observed in 4 these talc (sic)." 5 Detection limit was easily 10 million. We 13:52 6 only -- out of these 400 samples, I think we have 7 two, maybe three now, that was -- that was either 8 10 million or above, three or four. 9 I'll skip ahead to where he's attacking 10 our work. 13:52 11 Q. Just give me the page number, Dr. Longo. 12 A. I'm just looking for when he starts on our 13 stuff. 14 Okay. Page 17 of 84, first line, we're 15 not accredited by the National Voluntary 13:53 16 Laboratory Accreditation Program or American 17 Industrial Hygiene Association, AIHA. 18 We were accredited up to two years ago. 19 We were one of the first companies and -- when 20 they started their first accreditation to get it. 13:53 21 But we had a -- we had an NVLAP -- last 22 audit we had, like, two years ago, asked us why we 23 were even bothering with this, because they only 24 come in and look at things that -- samples that 25 are for schools, which is asbestos-added products. 13:53</p> <p style="text-align: right;">Page 488</p>	<p>1 interests of J&J's worldwide talc market. In '74, 2 they stated that. 3 They deep-sixed it and never told any 4 government agency that they had already developed 5 a method for analyzing chrysotile by PLM. FDA 13:55 6 struggled developing it. J&J never told them they 7 already had one. 8 Okay. Number 3, wrong. We -- we 9 developed the -- when we had the PLM method, we 10 used RG-144 Calidria, which has an average size 13:56 11 that's longer but also has smaller -- like the 12 SG-210. We actually made various concentrations, 13 analyzed it by PLM so that we knew what the weight 14 percent was versus what we put in it. 15 So Alan Segrave is wrong about that, that 13:56 16 we never -- you know, we're "prone to highly 17 suggestive estimates for what an analyst 'sees' 18 and, therefore, not repeatable." 19 If you go through our analysis, you will 20 see our ranges of weight percent we're finding for 13:57 21 chrysotile is in a bracket of -- not all over the 22 board. 23 Let see. What else? 24 You know, Number 5, we "are a contributing 25 factor to erroneously misidentifying talc as 13:57</p> <p style="text-align: right;">Page 490</p>

<p>1 chrysotile," that's not true, of course. 2 And Number 6, you looked at our PLM 3 analysis. It says 21 degrees centigrade. We 4 record every time we do a PLM analysis on what the 5 temperature is that day. I'm not sure why he says 13:57 6 that. Our microscopes don't have a strong heat 7 source. All the analysis here were done with LED 8 lights. I think anybody who's ever changed -- 9 felt an LED light, even the big ones, they're 10 hardly even warm. 13:58 11 And this is just a petty thing: There's 12 no such thing as RI oils. These are not oils. 13 They're fluid. But that's petty. 14 "Room temperature versus temperature at 15 the stage of the microscope during analysis is 13:58 16 variable due to the strong heat source," we 17 already talked about that. We don't have a strong 18 heat source. 19 He talks about the Johns-Manville document 20 from 1973, "Since the alpha index is less than 13:58 21 1.574, they would be mistaken for chrysotile." 22 I'm not sure that's true. I know in that 23 document, 1973, they talk about how easy it is to 24 differentiate between fibrous talc or talc plates 25 on edge versus chrysotile. I just looked at this 13:59 Page 491</p>	<p>1 by stereomicroscopy for observed fibers 2 and subsequent analysis representative 3 mounts by PLM, including random mounts." 4 The size of the chrysotile fibers we're 5 seeing and the size of the talc bundles we're 14:01 6 seeing are not in a range that you can see with a 7 stereo optical microscope, where the highest 8 magnification is usually 40 times. So that is for 9 asbestos-added products only. You are never going 10 to see any of this. 14:01 11 And we do take random mounts. We take 12 three mounts that randomly come off a filter in 13 different spots. So it's all random. 14 Let's go on here, see what's in the next 15 section. 14:01 16 Point counting in commercial bulk 17 materials. If you want to do point counting, 18 that's fine. Over the years, we never used point 19 counting because it's not as accurate. And if you 20 look at the ISO 22262-1, it will tell you if you 14:02 21 have different size materials, type materials, 22 point counting isn't very accurate. I dispute 23 that's something that you should be doing. 24 And point counting does not get you to the 25 detection limit like the method we use, which is a 14:02 Page 493</p>
<p>1 late last night, so... 2 Number 9 is really puzzling to me: 3 "Dr. Longo claims to have followed 4 the ISO 22262-1 method where PLM analysis 5 specifies using a magnification of 400 13:59 6 times; however, Dr. Longo testified use of 7 a high-powered objective lens. Notably, 8 higher magnification above 400 to 500X" -- 9 that's not true -- "gives rise to the 10 distortion of dispersion staining colors 13:59 11 and is not specified in the ISO 22262-1." 12 Well, we do dispersion staining at a 13 magnification of 100X because at this time, the 14 only dispersion staining central-stop objective 15 lens that anybody could get was 10X. With the 14:00 16 binoculars on top of the optical microscope makes 17 it 100X. 18 As somebody that -- Mr. Segrave, who is 19 supposed to be schooled and an expert in PLM 20 analysis, I'm not sure why he would say such a 14:00 21 crazy thing. 22 Let's go on to Number 10; again, he's not 23 following the ISO 22262-1. 24 "Section 7.2.3.1 of the method 25 requires examination of the bulk material 14:00 Page 492</p>	<p>1 standard method. 2 All right. Let's see what is next. 3 Q. Dr. Longo, if you want to kind of -- this 4 goes on for -- I realize you have a lot of 5 criticisms here. 14:02 6 A. I'll tell you what. Let's make it 7 something that's kind of interesting to me. I 8 just got to find out what I did with it. 9 Q. Kind of leave it to what you intend to 10 testify about if you come in next week. 14:03 11 A. Okay. I went through all his PLM analysis 12 where they -- we'll go to the first one, which is 13 their PLM -- well, the first one I got on the top 14 here, 5 -- 1A. 1A, they say they have -- and I'm 15 looking at page 15 of 297, where it is their -- 14:03 16 and I'll just show you real quick. It's kind of 17 their count sheet. 18 They said they found two talcs that has a 19 birefringence of 0.024 and 0.02. There is no 20 fibrous talc out there, because they do call it 14:03 21 elongated. 22 And what's kind of significant of this is 23 going to page -- where they say elongated talc. 24 I'm assuming -- it's very unclear what we have 25 here, because if you look at this, it's taken at 14:04 Page 494</p>

<p>1 very poor magnification on which ones they're 2 talking about for elongation. 3 Q. What's the page number you're looking at? 4 A. I'm looking now at page 30 and 32. Their 5 refractive indices are pretty close to what I 14:04 6 would have called chrysotile. That is not fibrous 7 talc. The birefringence is not high enough. And 8 talc does not exist in the .02 to .22 9 birefringence. But it's very difficult for me to 10 see their elongation, exactly where this -- what 14:04 11 particles they're looking at. That's not fibrous 12 talc. 13 Next one I have here is .005. We got a 14 gamma of talc. That's not talc we're looking at 15 there. 14:05 16 And then I'm looking at the alpha talc, 17 which, as far as I can tell, it's at the 18 extinction limit because it's not visible 19 anywhere, you know, the perpendicular one, if you 20 move -- if you move the particles. So it's 14:05 21 literally at the extinction limit of 1.550 in 22 those two talcs. 23 So they had 1.548 for alpha. That's not 24 possible because it would not be at the extinction 25 limit unless there's something else on here that 14:06 Page 495</p>	<p>1 Q. What is it, in your opinion, Dr. Longo? 2 A. Fibrous talc or talc plates on the edge 3 always start off around .045, and the highest I've 4 seen is 0.065. I have never found a reference 5 anywhere that fibrous talc is that. 14:08 6 And looking at the gamma, the 1.573 is a 7 little too -- is, in my opinion, too high for 8 that. I agree with the alpha. 9 The elongation from both the northwest and 10 northeast, you have -- you have -- these are 14:09 11 negative elongations for both of them. 12 And neither talc nor chrysotile has that. 13 This is a misidentification of talc. I'm not 14 aware of much minerals -- now, brucite will have 15 negative elongation, but when you turn it to the 14:09 16 north -- to the northeast/southwest direction, you 17 get positive elongation, and it doesn't have 18 either of this. 19 So this would be a mystery mineral unless 20 they've done something wrong. 14:09 21 I'm making sure. 4A, again, alpha, gamma. 22 They got same refractive -- same birefringence. 23 The gamma is a little too high, in my opinion. 24 But these are pictures. 25 Again we have an elongation for the talc. 14:10 Page 497</p>
<p>1 we can't see. 2 And then it has for gamma 1.568. I would 3 have put that a little bit lower. 4 But again, I can't tell on these 5 elongation. It could be a representative photo 14:06 6 here. 7 Certainly on the one, I can see, but I 8 don't have the other one. But that is not fibrous 9 talc. That looks just like chrysotile. The 10 refractive indices aren't high enough. 14:06 11 Then we have -- all right. Go to 002A. 12 Q. Dr. Longo, what I'm going to do is I'm 13 going to mark -- 14 MR. RISING: Early, what's the next one in 15 order? 14:07 16 A. 002A, I'm not doing the long number, they 17 say there's two here that is talc with alpha and 18 gamma. 1.5- -- you know, one at 1.551, and 1.550, 19 it's right at the extinction limit. 20 (Reporter clarification.) 14:07 21 THE WITNESS: Then gamma is 1.573, and the 22 second one is 1.573. They have a birefringence 23 range of 0.022 to 0.023, calling that moderate, 24 and I agree with that, but that is not talc. 25 BY MR. RISING: 14:08 Page 496</p>	<p>1 You're getting what talc plates are. 2 If this was elongated talc, it should 3 be -- it should be positive in -- in the one 4 direction, but it shouldn't -- it has -- it has 5 both a gamma and an alpha reading. You can't have 14:10 6 it positive in both directions -- I mean, excuse 7 me -- negative in both directions. It doesn't 8 make any sense to me. Maybe Mr. Segrave can -- 9 that was 4A. 10 Next one I have here is page 20, 006A. 14:11 11 Alpha is at extinction. Gamma is 1.56 now. 12 Birefringence of 1.019 moderate fibrous talc. 13 Again, page 54 and 55 shows that the 14 elongation is both negative. The -- only the 15 number -- only the one on 55 ought to be negative. 14:11 16 The one on 54 should be positive because we do 17 have two -- we have an alpha that's 1.550. Gamma 18 cannot be 1.550. It's got to be an extinction. 19 So you only kind of get that with talc plates. If 20 you look at the alpha, you got kind of a bluish 14:12 21 color there, from what I can see. 22 The talc plates don't change because 23 that's the Beta direction. But the gamma, that is 24 not 1.550. 25 So it's unclear what that is, at least in 14:12 Page 498</p>

<p>1 my opinion.</p> <p>2 9A is the next one. We have alpha at</p> <p>3 1.550; we have gamma at 1.569; a birefringence of</p> <p>4 0.019, moderate.</p> <p>5 We have gamma at 1.550 and alpha at 1.550 14:13</p> <p>6 with an extinction. So we have a high and low. I</p> <p>7 agree with the alpha. I don't understand how this</p> <p>8 could be 1.550 with kind of a yellowish-gold</p> <p>9 color, which would put us up in the 1.56566.</p> <p>10 And I think if we go back to some of these 14:13</p> <p>11 others -- might have just got something wrong</p> <p>12 here? Well, I have 9A and I have 9A on -- I'm</p> <p>13 sorry. That's got to be the -- I apologize.</p> <p>14 That's got to be the RI fluid -- it's actually</p> <p>15 1.569. It should be more yellow than that. And 14:14</p> <p>16 the alpha -- strike what I've said in the past</p> <p>17 because they've got the refractive indices on</p> <p>18 here. I'm just getting tired.</p> <p>19 1.550, I agree with that.</p> <p>20 Now, the elongated talc on page 67, what 14:14</p> <p>21 they're calling talc, that is a positive</p> <p>22 elongation. So it's known as a slow length.</p> <p>23 And the gamma, the other, 168, that is</p> <p>24 what you would expect for fibrous talc, but it's</p> <p>25 not fibrous talc because the refractive indices 14:15</p> <p style="text-align: right;">Page 499</p>	<p>1 And if you have 1.550, then you have a</p> <p>2 birefringence that's going to be 1.55 -- well,</p> <p>3 1.549, I can't argue with that. I think their</p> <p>4 gamma is off. Anyway, 0.019 is too low.</p> <p>5 And I guess looking at page 78, elongated 14:18</p> <p>6 talc, very hard with the resolution on this,</p> <p>7 should be bigger, but I won't -- certainly the --</p> <p>8 page 79 is appropriate. Page 78, there is blue in</p> <p>9 there. So again, I would call that chrysotile.</p> <p>10 Birefringence is way off to be talc. 14:19</p> <p>11 On page 14A, we got alpha at 1.551, gamma</p> <p>12 at 1.572.</p> <p>13 1.572 has to be way more yellow than that.</p> <p>14 The alpha talc on page 89, I agreed with, 1.549.</p> <p>15 The -- on 88, that would positive 14:19</p> <p>16 elongation.</p> <p>17 And 87, that's appropriate.</p> <p>18 So again, that's not talc. That's</p> <p>19 chrysotile, in my opinion.</p> <p>20 Last but not least, 15A, starting on 14:20</p> <p>21 page 29. We have our alpha at 1.549; again, gamma</p> <p>22 at 1.574; birefringence of 0.25.</p> <p>23 The photograph in gamma, at least what I'm</p> <p>24 looking here, is much lower than 1.574. That's in</p> <p>25 the 1.56-something range. I agree with the alpha. 14:20</p> <p style="text-align: right;">Page 501</p>
<p>1 are -- excuse me -- the refractive indices for</p> <p>2 determining the birefringence is not nearly what</p> <p>3 is required. There is no talc at 0.019. That's</p> <p>4 chrysotile we're looking at. Because in my</p> <p>5 opinion, the gamma is -- the gamma direction is 14:15</p> <p>6 not 1.569. That's going to be more yellow versus</p> <p>7 this more golden color. It's got to be down</p> <p>8 towards the 1. -- 1.64, 1.65.</p> <p>9 So actually, in my opinion, 009A, in order</p> <p>10 for that to be elongated talc, the birefringence 14:16</p> <p>11 has to be at least 0.045 and higher.</p> <p>12 Just want to go in order here.</p> <p>13 11A, alpha 1.549. Let me see what alpha</p> <p>14 is.</p> <p>15 Alpha is wrong, 1.549, because if you go 14:16</p> <p>16 to page 80, which is the alpha, quote, talc</p> <p>17 compared to page 81, which is the gamma, and you</p> <p>18 turn that to the right to put it in the</p> <p>19 perpendicular direction, if I'm looking at this</p> <p>20 right -- wait a minute. 14:17</p> <p>21 When you get -- if we're looking at the</p> <p>22 right structure, we're getting in the</p> <p>23 perpendicular direction, it's got extinction,</p> <p>24 which a matching wavelength has to be around 1.550</p> <p>25 instead of -- since you're using 1.550. 14:18</p> <p style="text-align: right;">Page 500</p>	<p>1 On page 92, we have blue on the corners,</p> <p>2 and then all yellow when we go to the other side</p> <p>3 of elongation of a direction. Close enough, I</p> <p>4 guess.</p> <p>5 I don't know how good their PLM microscope 14:21</p> <p>6 is. That's why, you know, when we compare it to</p> <p>7 ours, it's much better resolution.</p> <p>8 But that's closer than chrysotile. And</p> <p>9 again, the birefringence at 0.025 is -- you'll</p> <p>10 never find any fibrous talc like that, talc plates 14:21</p> <p>11 on edge. Okay.</p> <p>12 Q. What's the takeaway -- you went on for a</p> <p>13 while there. What's the takeaway from all that if</p> <p>14 you had to sum that up?</p> <p>15 A. The takeaway all this is they are 14:22</p> <p>16 completely misidentifying what they're calling</p> <p>17 elongated talc, not even close to what you should</p> <p>18 have both in the refractive indices as well as the</p> <p>19 birefringence.</p> <p>20 Q. And what is it? You said sometimes you 14:22</p> <p>21 thought it was chrysotile and sometimes you didn't</p> <p>22 know?</p> <p>23 A. Well, some of it doesn't make any sense to</p> <p>24 me. I have not come across anything in these</p> <p>25 minerals that has -- for biaxial anisotropic 14:22</p> <p style="text-align: right;">Page 502</p>

<p>1 mineral that has a double refraction that would 2 have both an elongation both -- two negative in 3 both directions. One should be positive or 4 negative, and the other one should be -- if it's 5 negative, it should be positive, and if it's 14:22 6 positive, it should be negative. 7 Here we have two negatives. It doesn't 8 make any sense to me. So I can't tell you what 9 that is. 10 Now, the ones where we have positive 14:23 11 elongation and negative elongation for that as 12 well as put the proper -- number one, even with 13 these slightly out gammas, it is nowhere near what 14 fibrous talc would be. We're looking at a 15 threefold -- almost a threefold difference in the 14:23 16 birefringence versus what's being reported here. 17 Q. Anything else, Dr. Longo? 18 A. Well, you know, I don't think we have time 19 anymore, you know, where to go. Mr. Segrave has 20 32 things -- 33 things that he doesn't like about 14:23 21 my report. 22 Q. Do you agree -- 23 A. He used to work for me. 24 Q. Do you agree with anything in the 33? 25 A. Let's see. Number 34, Dr. Longo is the 14:24</p> <p style="text-align: right;">Page 503</p>	<p>1 Q. Well, hopefully, it wasn't too painful. 2 A. No, sir. And I appreciate your 3 professionalism. It was fine. 4 MR. RISING: All right. I thank you for 5 your time. I look forward to meeting you next 14:25 6 week. 7 THE WITNESS: All right. Me, too. 8 MR. RISING: All right. That's all the 9 questions I have for today. 10 THE WITNESS: I think we must have hit our 14:25 11 five hours by now. 12 MR. RISING: I think we did. 13 THE WITNESS: 5:25. 14 MR. HINES: Thank you, Counsel. 15 THE WITNESS: Thank you, guys. And I 14:25 16 guess I'll see some of you next week. 17 MR. RISING: Yeah. See you. Bye. 18 THE WITNESS: All right. I'm leaving. 19 THE VIDEOGRAPHER: We are off the record 20 at 5:26 p.m. This concludes today's testimony 14:26 21 given by William Longo, Ph.D., Volume III. The 22 total number of media used was four and will be 23 retained by Veritext Legal Solutions. Thank you. 24 (Whereupon, the deposition was 25 concluded at 5:26 p.m.)</p> <p style="text-align: right;">Page 505</p>
<p>1 best scientist I've ever worked for. Not. No, 2 there is no 34. 3 Q. Dr. Longo, is there any opinions that you 4 intend to offer at trial about Safeway, long -- 5 Longs or Lucky that you haven't shared with me 14:24 6 today? 7 A. I don't know. I don't know what 8 hypotheticals I'm going to be given. And even 9 though you've done a very thorough job, I have no 10 idea what you might ask on cross. 14:24 11 But I feel like I've given you my basic 12 opinions, so it should be -- you know, I can't 13 think of anything else, as I sit here right now. 14 Q. Do you plan to do any additional work 15 before you testify either next week or the 14:24 16 following week? 17 A. You mean starting tomorrow morning real 18 early, I start reanalyzing these in 1.560? No. 19 Q. Plenty of time. There's 24 hours in a 20 day, Dr. Longo. 14:25 21 A. No, sir. I don't really believe in 22 bushwhacking attorneys, going and doing something 23 like that. I don't really believe in it. I know 24 you guys love to do that to me, but, you know, 25 that's your job. 14:25</p> <p style="text-align: right;">Page 504</p>	<p>1 SIGNATURE OF DEPONENT 2 3 I, the undersigned, WILLIAM LONGO, Ph.D., 4 do hereby certify that I have read the foregoing 5 deposition and find it to be a true and accurate 6 transcription of my testimony, with the following 7 corrections, if any: 8 9 PAGE LINE CHANGE 10 _____ 11 _____ 12 _____ 13 _____ 14 _____ 15 _____ 16 _____ 17 _____ 18 _____ 19 _____ 20 _____ 21 _____ 22 _____ 23 _____ 24 _____ 25 WILLIAM LONGO, Ph.D., Date</p> <p style="text-align: right;">Page 506</p>

<p>1 STATE OF CALIFORNIA</p> <p>2 ss.</p> <p>3 REPORTER'S CERTIFICATE</p> <p>4</p> <p>5</p> <p>6 I, EARLY LANGLEY, a Certified Shorthand</p> <p>7 Reporter, State of California, do hereby certify:</p> <p>8 That WILLIAM LONGO, Ph.D., in the foregoing</p> <p>9 deposition named, was present via Zoom and by me</p> <p>10 sworn as a witness in the above-entitled action at</p> <p>11 the time and place therein specified;</p> <p>12 That said deposition was taken before me</p> <p>13 via Zoom at said time and place, and was taken</p> <p>14 down in shorthand by me, a Certified Shorthand</p> <p>15 Reporter of the State of California, and was</p> <p>16 thereafter transcribed into typewriting, and that</p> <p>17 the foregoing transcript constitutes a full, true</p> <p>18 and correct report of said deposition and of the</p> <p>19 proceedings that took place;</p> <p>20 IN WITNESS WHEREOF, I have hereunder subscribed my</p> <p>21 hand on November 6, 2023.</p> <p>22</p> <p>23  EARLY LANGLEY, CSR NO. 3537</p> <p>24 State of California</p> <p>25</p> <p style="text-align: right;">Page 507</p>	<p>1 __ Federal R&S Requested (FRCP 30(e)(1)(B)) – Locked .PDF</p> <p>2 Transcript - The witness should review the transcript and</p> <p>3 make any necessary corrections on the errata pages included</p> <p>4 below, notating the page and line number of the corrections.</p> <p>5 The witness should then sign and date the errata and penalty</p> <p>6 of perjury pages and return the completed pages to all</p> <p>7 appearing counsel within the period of time determined at</p> <p>8 the deposition or provided by the Federal Rules.</p> <p>9 __ Federal R&S Not Requested - Reading & Signature was not</p> <p>10 requested before the completion of the deposition.</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 509</p>
<p>1 Michael Reid, Esq.</p> <p>2 Mreid@kazanlaw.com</p> <p>3 November 6, 2023</p> <p>4 RE: MARLIN LEWIS EAGLES vs. ARVINMERITOR, INC.</p> <p>5 November 3, 2023, William Longo, Ph.D. (JOB NO. 6298688)</p> <p>6 The above-referenced transcript has been</p> <p>7 completed by Veritext Legal Solutions and</p> <p>8 review of the transcript is being handled as follows:</p> <p>9 __ Per CA State Code (CCP 2025.520 (a)-(e)) – Contact Veritext</p> <p>10 to schedule a time to review the original transcript at</p> <p>11 a Veritext office.</p> <p>12 _X_ Per CA State Code (CCP 2025.520 (a)-(e)) – Locked .PDF</p> <p>13 Transcript - The witness should review the transcript and</p> <p>14 make any necessary corrections on the errata pages included</p> <p>15 below, notating the page and line number of the corrections.</p> <p>16 The witness should then sign and date the errata and penalty</p> <p>17 of perjury pages and return the completed pages to all</p> <p>18 appearing counsel within the period of time determined at</p> <p>19 the deposition or provided by the Code of Civil Procedure.</p> <p>20 __ Waiving the CA Code of Civil Procedure per Stipulation of</p> <p>21 Counsel - Original transcript to be released for signature</p> <p>22 as determined at the deposition.</p> <p>23 __ Signature Waived – Reading & Signature was waived at the</p> <p>24 time of the deposition.</p> <p>25</p> <p style="text-align: right;">Page 508</p>	<p>1 MARLIN LEWIS EAGLES vs. ARVINMERITOR, INC.</p> <p>2 William Longo, Ph.D. (JOB NO. 6298688)</p> <p>3 E R R A T A S H E E T</p> <p>4 PAGE____ LINE____ CHANGE_____</p> <p>5 _____</p> <p>6 REASON_____</p> <p>7 PAGE____ LINE____ CHANGE_____</p> <p>8 _____</p> <p>9 REASON_____</p> <p>10 PAGE____ LINE____ CHANGE_____</p> <p>11 _____</p> <p>12 REASON_____</p> <p>13 PAGE____ LINE____ CHANGE_____</p> <p>14 _____</p> <p>15 REASON_____</p> <p>16 PAGE____ LINE____ CHANGE_____</p> <p>17 _____</p> <p>18 REASON_____</p> <p>19 PAGE____ LINE____ CHANGE_____</p> <p>20 _____</p> <p>21 REASON_____</p> <p>22 _____</p> <p>23 _____</p> <p>24 WITNESS _____ Date _____</p> <p>25</p> <p style="text-align: right;">Page 510</p>

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California Code of Civil Procedure

Article 5. Transcript or Recording

Section 2025.520

(a) If the deposition testimony is stenographically recorded, the deposition officer shall send written notice to the deponent and to all parties attending the deposition when the Original transcript of the testimony for each session of the deposition is available for reading, correcting, and signing, unless the deponent and the attending parties agree on the record that the reading, correcting, and signing of the transcript of the testimony will be waived or that the reading, correcting, and signing of a transcript of the testimony will take place after the entire deposition has been concluded or at some other specific time.

(b) For 30 days following each notice under subdivision (a), unless the attending parties and the deponent agree on the record or otherwise in writing to a longer or shorter time period, the deponent may change the form or the substance of the answer to a question, and may either approve the transcript of the deposition by signing it, or

refuse to approve the transcript by not signing it.

(c) Alternatively, within this same period, the deponent may change the form or the substance of the answer to any question and may approve or refuse to approve the transcript by means of a letter to the deposition officer signed by the deponent which is mailed by certified or registered mail with return receipt requested. A copy of that letter shall be sent by first-class mail to all parties attending the deposition.

(d) For good cause shown, the court may shorten the 30-day period for making changes, approving, or refusing to approve the transcript.

(e) The deposition officer shall indicate on the original of the transcript, if the deponent has not already done so at the office of the deposition officer, any action taken by the deponent and indicate on the original of the transcript, the deponent's approval of, or failure or refusal to approve, the transcript. The deposition officer shall also notify in writing the parties attending the deposition of any changes which the deponent timely made in person.

(f) If the deponent fails or refuses to approve the transcript within the allotted period, the

deposition shall be given the same effect as though it had been approved, subject to any changes timely made by the deponent.

(g) Notwithstanding subdivision (f), on a seasonable motion to suppress the deposition, accompanied by a meet and confer declaration under Section 2016.040, the court may determine that the reasons given for the failure or refusal to approve the transcript require rejection of the deposition in whole or in part.

(h) The court shall impose a monetary sanction under Chapter 7 (commencing with Section 2023.010) against any party, person, or attorney who unsuccessfully makes or opposes a motion to suppress a deposition under this section, unless the court finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust.

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Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the deposition officer. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the deposition officer and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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Exhibit 79

1 SUPERIOR COURT OF CALIFORNIA

2 COUNTY OF ALAMEDA

3
4 MARLIN LEWIS EAGLES and
GEORGIA EAGLES,

Case No. 22CV018294

5
6 Plaintiffs,

7
8 vs.

9
10 ARVINMERITOR, INC., et al.,

11
12 Defendants.

13 VIDEOTAPED VIDEOCONFERENCE DEPOSITION OF

14 WILLIAM LONGO, PH.D.

15 Suwanee, Georgia

16 Monday, October 23, 2023

17 Volume 2

18
19
20
21 Reported by:

LESLIE JOHNSON

22 RPR, CCRR, CSR No. 11451

23 Job No.: 6167398

24 PAGES 166 - 281

25

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SUPERIOR COURT OF CALIFORNIA

COUNTY OF ALAMEDA

MARLIN LEWIS EAGLES and
GEORGIA EAGLES,

Case No. 22CV018294

Plaintiffs,

vs.

ARVINMERITOR, INC., et al.,

Defendants.

VIDEOTAPED VIDEOCONFERENCE DEPOSITION OF
WILLIAM LONGO, PH.D., Volume 2, taken on behalf of
Defendants, at Suwanee, Georgia, beginning at 10:36 a.m.
and ending at 1:29 p.m. (EDT) on Monday, October 23,
2023, before LESLIE JOHNSON, Certified Shorthand Reporter
No. 11451.

1 APPEARANCES:

2
3 For Plaintiffs:

4 KAZAN, McCLAIN, SATTERLEY & GREENWOOD

5 BY: JOSEPH D. SATTERLEY, ESQ.

6 Jack London Market

7 55 Harrison Street, Suite 400

8 Oakland, California 94607

9 (510)302-1000

10 jsatterley@kazanlaw.com

11 For Defendant Lucky Stores; Save Mart, LLC; Safeway, Inc.;
12 and Longs Drugstores California, LLC on behalf of Longs
Drugstores California, Inc.:

13 BARNES & THORNBURG LLP

14 BY: KEVIN RISING, ESQ.

15 2029 Century Park East, Suite 300

16 Los Angeles, California 90067

17 (310)284-3880

18 kevin.rising@btlaw.com
19
20
21
22
23
24
25

1 APPEARANCES (Cont.):

2
3 For Defendants Johnson & Johnson and LTL:

4 BUTLER SNOW

5 BY: KIM BUENO, ESQ.

6 CHRISTOPHER R. COWAN, ESQ.

7 1400 Lavaca Street, Suite 1000

8 Austin, Texas 78701

9 (737)802-1820

10 kim.bueno@butlersnow.com

11 chris.cowan@butlersnow.com

12 For Defendants Johnson & Johnson and LTL:

13 KING & SPALDING LLP

14 BY: MORTON DUBIN II, ESQ.

15 JACOB KEESTER, ESQ.

16 SHAIRA RAHMAN DIMAN, ESQ.

17 1185 Avenue of the Americas, 34th Floor

18 New York, New York 10036

19 (212)556-2100

20 mdubin@kslaw.com

21 jkeester@kslaw.com

22 sdiwan@kslaw.com

1 APPEARANCES (Cont.):

2
3 For Defendant Perrigo Company of Tennessee f/k/a
4 Cumberland-Swan and CMC, Inc.:

5 POLSINELLI LLP

6 BY: MATTHEW S. O'BRIEN, ESQ.

7 2049 Century Park East, Suite 2900

8 Los Angeles, California 90067

9 (310)556-1801

10 mobrien@polsinelli.com

11 - and -

12 GOODELL, DEVRIES, LEECH & DANN, LLP

13 BY: JEFFREY J. HINES, ESQ.

14 One South Street, 20th Floor

15 Baltimore, Maryland 21202

16 (410)783-4041

17 jjh@gdldlaw.com

18 Also Present:

19 KIMBERLEE DECKER, Videographer
20
21
22
23
24
25

I N D E X

WITNESS EXAMINATION
WILLIAM LONGO, Ph.D.
Volume 2

BY MR. DUBIN 176

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WILLIAM LONGO, PH.D.

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1 Suwanee, Georgia

2 Monday, October 23, 2023; 10:36 (EDT)

3

4 THE VIDEOGRAPHER: Good morning. We are

5 on the record at 10:36 a.m. on October 23rd of 2023. 10:36:06

6 All participants are attending remotely.

7 Audio and video recording will continue to take

8 place unless all parties agree to go off the record.

9 This is Media Unit 1, Volume 2 of the

10 video-recorded deposition of William Longo, Ph.D. 10:36:27

11 taken by counsel for the plaintiff in the matter of

12 Marlin Lewis Eagles and Georgia Eagles versus

13 Arvinmeritor, Inc., et al., filed in the Superior

14 Court for the State of California, County of

15 Alameda, Case No. 22CV018294. 10:36:46

16 My name is Kimberlee Decker from Veritext

17 Legal Solutions, and I am the videographer. The

18 court reporter is Leslie Johnson. I'm not related

19 to any party in this action nor am I financially

20 interested in the outcome. 10:37:04

21 Counsel and all present will now state

22 their appearances and affiliations for the record.

23 If there are any objections to the

24 proceeding, please state them at the time of your

25 appearance, beginning with the noticing attorney. 10:37:14

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1 And one more thing. This is being taken 10:37:17
2 by counsel for the defendants.

3 Please state your names.

4 MR. DUBIN: Hi. This is Morton Dubin for
5 the Johnson & Johnson related defendants. 10:37:27

6 MS. BUENO: Kim Bueno on behalf of the
7 Johnson & Johnson related defendants.

8 MS. DIMAN: Shaila Diman for the Johnson &
9 Johnson related defendants.

10 MR. RISING: Kevin Rising for Longs, Lucky, 10:37:35
11 and Safeway.

12 MR. O'BRIEN: Matthew O'Brien on behalf of
13 Defendant Perrigo Company of Tennessee.

14 MR. COWAN: Chris Cowan for Butler Snow on
15 behalf of the Johnson & Johnson defendants. 10:37:50

16 MR. SATTERLEY: There's a Jake Keester.
17 Who is that?

18 MR. DUBIN: He's my associate. Just
19 pulling things up for me.

20 MR. SATTERLEY: Okay. Joe Satterley for 10:37:53
21 the plaintiffs.

22 THE VIDEOGRAPHER: Thank you. Will the
23 court reporter please swear in the witness.

24 / / / /

25 / / / /

1 WILLIAM LONGO, PH.D., 10:38:00
2 having been re-administered an oath, was examined
3 and testified as follows:
4
5 MR. DUBIN: All right. So we'll start by 10:38:19
6 marking as Exhibit 19, which is I think where we
7 left off, the notice for day two of the deposition.
8 We don't need to call that up.
9 (Exhibit 19 marked for identification.)
10 MR. DUBIN: So, as I understand it, 10:38:34
11 there's been some back and forth with the scope and
12 extent of materials that are being requested from
13 Dr. Sanchez about including his prior talc and
14 litigation work and billing and billing backup. And
15 just for the record, I want to be clear, anything 10:38:51
16 that has been requested of Dr. Sanchez we are also
17 requesting of Dr. Longo.
18 So we can follow up with that later, but I
19 just want to make sure it's clear on the record that
20 we're requesting a scope that is equivalent in scale 10:39:03
21 to what Plaintiffs requested from Dr. Sanchez.
22 All right. So let's get started.
23 / / / /
24 / / / /
25 / / / /

1 EXAMINATION (RESUMED) 10:39:15

2 BY MR. DUBIN:

3 Q Dr. Longo, is there anything from your

4 first day of your deposition that you wish to amend

5 or correct at this point? 10:39:22

6 A No.

7 Q Okay. And so first topic I want to go

8 back to very briefly is the -- to make sure I

9 understand, we talked a little bit about the

10 father's work in the shipyard. And just to be 10:39:42

11 clear, amosite was one of the types of insulation

12 materials that -- sorry, one of the types of

13 asbestos that was used in insulation materials

14 historically in U.S. shipyards, correct?

15 A That is correct. 10:40:00

16 Q Okay. And Dr. Dodson reported amosite in

17 Mr. Eagles' tissue, correct?

18 A That's what he called it.

19 Q And I think you described it in your first

20 day of deposition as possibly grunerite. 10:40:17

21 Is that where you are in what that

22 particle is?

23 A Possibly cummingtonite-grunerite or

24 grunerite, which would be the appropriate geological

25 mineralogical name for amosite, since amosite is a 10:40:35

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1 trade name. So that's where I'm at. 10:40:41

2 Q And what, to you, is the deciding factor
3 on whether something should be called cummingtonite
4 or grunerite?

5 A The ratio of iron to magnesium, I believe 10:40:54
6 it is, or silicon, since that's the -- essentially
7 the solid solution series there.

8 Q So at what point does the ratio of iron to
9 magnesium tip such that you would call a mineral
10 grunerite, as opposed to cummingtonite? 10:41:13

11 A I don't know right as I sit here now. I'd
12 have to look at it to make sure I was precise.

13 Q Okay. Well, if something is over
14 50 percent iron versus magnesium, is it then
15 grunerite? 10:41:29

16 A Again, to be precise, I'd like to look at
17 the chemistry --

18 Q Okay.

19 A -- Howie and Zussman or maybe look at Ann
20 Wylie's definition on where the changeover is on the 10:41:41
21 ratio.

22 Q Okay. So, when you say "possibly
23 grunerite," can you tell me anything about the
24 chemistry of the fiber that Dr. Dodson identified
25 that leads you to say it is only possibly grunerite? 10:41:56

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1 A Well, let me -- just a second so I can get 10:42:00
2 to it.

3 Well, the iron peak is maybe 60 percent of
4 the silicon peak. And so I would like to be able to
5 look at that -- look at the actual formulations and 10:43:00
6 the ranges. That's all.

7 Q How about compared to the magnesium peak?

8 A The magnesium peak is lower, which would
9 be expected because when the -- that's the
10 substitution -- that's what's substituted as the 10:43:22
11 iron. But it would be the iron ratio to silicon
12 ratio would be the -- the formula for it.

13 And you'd have to look at the -- you know,
14 the manganese peak. I don't remember if that is a
15 marker for grunerite-cummingtonite or just 10:43:50
16 grunerite. I can't remember that part.

17 So I'd have to check that.

18 Q So is it your testimony that the
19 distinction between cummingtonite and grunerite is
20 based on the ratio of iron and silica or iron and 10:44:06
21 magnesium?

22 A It's -- as I recall -- well, the magnesium
23 is lowered because of the iron. That would be part
24 of it, if you looked at the formula. But I think
25 what Ann Wylie, at least in -- at least what was 10:44:24

1 stated to Dr. Sanchez in his deposition was that it 10:44:28
2 was a ratio of the silicon to iron.

3 Q Okay. So it's silica to iron that you
4 believe is the distinguishing factor, not silica --
5 not iron to magnesium? 10:44:43

6 A Again, it's not what I am establishing, as
7 I've told you two or three times now. I would like
8 to revisit that.

9 I believe that it may be some order of the
10 magnesium to iron, the silicon to iron. It would be 10:44:59
11 more of a -- I'd have to look at the actual formula.
12 But it should never be called amosite, in my
13 opinion.

14 Q So you haven't in tissue burden studies
15 referred to individuals as having amosite in their 10:45:20
16 tissue?

17 A We have in the past. But that was -- that
18 was a mistake. And we should call it its mineral
19 name. I would never do that now.

20 Q Do you have any idea approximately how 10:45:35
21 many times you have made in the past the mistake of
22 calling a fiber in a tissue burden analysis amosite?

23 A Let's see. Over the 20, 30 some years, I
24 don't know.

25 Q Hundreds? 10:45:55

1 MR. SATTERLEY: Objection. Calls for 10:45:58
2 speculation. Asked and answered.
3 THE WITNESS: Is it bigger than a bread
4 box? I don't know.
5 BY MR. DUBIN: 10:46:03
6 Q Okay. And how about if you're doing
7 product testing and you find a mineral that's
8 grunerite in a product, do you think you should call
9 it amosite or grunerite?
10 MR. SATTERLEY: Objection. Overly broad. 10:46:16
11 Vague.
12 THE WITNESS: Well, that's different if
13 you're doing -- and you know what the product is and
14 you know what's in it and where it came from. That
15 I don't have that much of a problem. 10:46:26
16 But if we were -- it's been a while since
17 we've tested an amosite product, but now just to
18 keep it consistent, just call it its actual mineral
19 name.
20 But if you know what the product is, such 10:46:42
21 as Marinite, and you know that JM only used amosite
22 in Marinite, it's pretty easy to call it Marinite.
23 But when you're doing lung tissue analysis
24 burdens, I think you should call it the regular
25 mineral name. 10:47:00

1 BY MR. DUBIN: 10:47:01

2 Q Okay. So you agree that when you're
3 describing a mineral, it's important to use its
4 correct mineral name, right?

5 A I believe it's important, yes. 10:47:08

6 Q Okay. So you've said before that at least
7 some of what you've called anthophyllite in your
8 testing of Johnson & Johnson may in fact be
9 cummingtonite, correct?

10 A Correct. 10:47:25

11 Q So why didn't you use the correct mineral
12 name then?

13 MR. SATTERLEY: Objection. Argumentative.

14 THE WITNESS: I believe a lot of times we
15 said it could be -- you know, we were calling it all 10:47:35
16 anthophyllite. The difference, of course, is the
17 iron and transformation from the orthorhombic to
18 monoclinic. And in order to tell the difference
19 there would require -- would require additional
20 analysis. So, at that time, we just don't do it. 10:47:58

21 BY MR. DUBIN:

22 Q What initial analysis would it have
23 required, and how long do you believe it would have
24 taken to do for any individual particle?

25 MR. SATTERLEY: Objection. Calls for 10:48:12

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1 speculation. 10:48:12

2 THE WITNESS: I don't know because we
3 haven't done it yet, so I would just be speculating.

4 BY MR. DUBIN:

5 Q So you would be speculating on how you 10:48:18
6 would tell the difference between anthophyllite and
7 cummingtonite?

8 A You didn't ask me that. You asked me how
9 long would it take me.

10 Q Okay. Let me just ask you. 10:48:29
11 How would you tell the difference between
12 anthophyllite and cummingtonite if you were going to
13 take that step?

14 A I would do quantitative chemistry at the
15 amount of iron. 10:48:45

16 Q Anything else?

17 A Don't know. I think that should be
18 plenty.

19 Q Okay. And so, an EDS spectra is not
20 enough for you to make those kind of chemical 10:48:57
21 judgments?

22 A It might be if I looked at enough
23 cummingtonite -- just cummingtonite standards. But
24 I don't know. I'd have to look at the cummingtonite
25 standards and see how readily you can do that -- 10:49:12

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1 Q Have you -- 10:49:15

2 A -- versus the grun --

3 cummingtonite-grunerite.

4 As I recall, cummingtonite-grunerite is

5 regulated asbestos. So it really didn't matter that 10:49:24

6 much at the time.

7 But I see your point.

8 Q Okay. And would a finding of amosite in

9 tissue be consistent with a take-home exposure of

10 amosite from amosite-containing insulation 10:49:47

11 materials?

12 MR. SATTERLEY: Objection. Calls for

13 speculation.

14 THE WITNESS: The finding of an

15 anthophyllite/grunerite. Again, amosite is a trade 10:49:55

16 name. And there is cummingtonite-grunerite as NOAs,

17 in my opinion. I'm not sure finding one, if it

18 really is grunerite slash, is anything but a

19 natural-occurring asbestos. Seems like what there

20 mostly is there in lung tissue is talc, tremolite, 10:50:22

21 et cetera, aluminum silicates.

22 BY MR. DUBIN:

23 Q So my question was, is finding amosite in

24 lung tissue consistent with take-home exposure from

25 asbestos-containing insulation materials? 10:50:40

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1 MR. SATTERLEY: Objection. Asked and 10:50:43
2 answered. Speculation.

3 BY MR. DUBIN:

4 Q You can't answer that, Dr. Longo?

5 A The finding of anthoph -- excuse me, 10:50:50
6 cummingtonite-grunerite in lung tissue for an
7 individual who does not have any -- sorry, does not
8 have any talcum powder exposure, especially from the
9 Vermont mines, and has a -- but has where we can say
10 within a reasonable degree of scientific certainty 10:51:23
11 that has been exposed to products that contain
12 cummingtonite-grunerite, yes.

13 Q I have no idea what you just said.

14 MR. SATTERLEY: He may have misspoke.

15 Dr. Longo, you may have misspoke. You 10:51:36
16 said something about no exposure to talc?

17 MR. DUBIN: Let's just --

18 (Crosstalk.)

19 THE WITNESS: You said is it consistent.

20 But that's sort of a vague question. 10:51:50

21 What about -- I'm trying to answer is,
22 yes, you would be right if we had a history of the
23 particular exposed individual where there is no
24 talcum powder exposure and that we know for a fact
25 from either his own testimony, the plaintiff's own 10:52:11

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1 testimony, or individuals that were coworkers that 10:52:15
2 he indeed was exposed to asbestos-containing
3 insulation in the time period where one of the
4 components, more likely than not, was
5 amosite/cummingtonite-grunerite. 10:52:32

6 Does that make more sense?

7 BY MR. DUBIN:

8 Q Well, I understood what you're saying.
9 I'm not going to say it makes sense.

10 Well, you have not found grunerite in any 10:52:45
11 Johnson & Johnson product, correct?

12 A That's correct.

13 Q And we have a history here of an
14 individual whose father worked in shipyards during
15 the time period when amosite was in insulation 10:53:02
16 materials, correct?

17 MR. SATTERLEY: Objection. Calls for
18 speculation. Assumes facts not in evidence.

19 What history are you talking about,
20 Mr. Dubin? 10:53:12

21 MR. DUBIN: I'm talking about the facts --

22 MR. SATTERLEY: No facts. Nobody's
23 testified to --

24 MR. DUBIN: I'm talking about the fact
25 that, as Dr. Longo has acknowledged, the father 10:53:21

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1 worked at a shipyard, right? 10:53:25

2 MR. SATTERLEY: Nobody has testified to
3 that fact, Mr. Dubin.

4 Where are you getting that at?

5 MR. DUBIN: Okay. Maybe we'll go back on 10:53:33
6 this later.

7 BY MR. DUBIN:

8 Q Let's assume somebody has.

9 You don't think there is evidence in this
10 case, Dr. Longo, that the plaintiff's father worked 10:53:44
11 at a shipyard; is that what you're saying?

12 MR. SATTERLEY: Objection. Calls for
13 speculation. Assumes facts not in evidence.

14 THE WITNESS: We have his -- we have
15 Mr. Eagles, who testified that he thought his father 10:54:04
16 worked in shipyards and that he was a marine
17 electrician.

18 What we don't have is any facts if in fact
19 he did work in a shipyard and did work on a ship
20 versus something else. There is no evidence there 10:54:18
21 to do that. So that's why I have the opinion that I
22 can't state that he had any exposure at a shipyard
23 one way -- or did have exposure one way or the
24 other.

25 / / / /

1 BY MR. DUBIN: 10:54:34

2 Q Okay. One of the things fiber burden

3 analyses are sometimes used for is to confirm what

4 exposures to asbestos an individual may have had in

5 the past, right? 10:54:46

6 A Correct.

7 Q In other words, somebody who you don't

8 know did they or did they not have exposure to

9 amosite in the past, then you find it in their

10 tissue, that helps you say, yes, they did in fact 10:54:59

11 have that exposure, right? That's part of the

12 purpose of a fiber burden analysis.

13 A I'm sorry. Could . . .

14 Q Sure. Let's say you had a question

15 whether this individual -- whether Plaintiff here 10:55:14

16 was exposed in the past from an amosite-containing

17 asbestos insulation materials. Isn't it a clue that

18 he was if you find amosite in his tissue?

19 A Again, I guess I'll repeat it.

20 Amosite is a trade name for South African 10:55:38

21 grunerite -- cummingtonite-grunerite.

22 If you find one potential

23 cummingtonite-grunerite and you find platy talc,

24 fibrous talc, tremolite, which is not an accessory

25 mineral that I recall from amosite, some 10:56:08

1 anthophyllite, some aluminum silicates, that 10:56:10
2 exposure points to the use of talcum powder, in my
3 opinion.

4 If you have information that somebody is
5 an insulator, worked around an insulator, handled 10:56:22
6 manufacturing -- in an area where they were
7 manufacturing products using amosite-containing --
8 amosite/cummingtonite-grunerite or what they're
9 calling amosite from the documents, yes, that
10 verifies it, but not necessarily has to be in the 10:56:43
11 lung burden analysis when you have the testimony.

12 Q Is there any type of asbestos, any mineral
13 type of asbestos that if it's found in plaintiff's
14 tissue you will not say, "Well, that's consistent
15 with talc"? 10:57:03

16 MR. SATTERLEY: Objection. Calls for
17 speculation.

18 THE WITNESS: Any asbestos mineral?

19 BY MR. DUBIN:

20 Q Any asbestos mineral. 10:57:22

21 A Any asbestos mineral, I would not say it
22 for crocidolite. I've never seen anything like
23 that. Certainly chrysotile. Certainly tremolite.
24 Certainly anthophyllite. Certainly cummingtonite --
25 cummingtonite-grunerite. But if there was a -- if 10:57:39

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1 there was crocidolite in there, I've never seen that 10:57:46
2 found in any natural occurring -- any
3 natural-occurring asbestos, except for some deposits
4 of dolomitic lime up in the New York, New Jersey
5 area. 10:58:07

6 Q First, let me just ask you, how much time
7 do we have today, Dr. Longo, so I can spend our time
8 wisely?

9 A Let's see. 10:30. I'm going to need some
10 lunch at some point. I would say four hours. 10:58:23

11 MR. SATTERLEY: Dr. Longo, you told me
12 three hours the other day. I have to be in court at
13 11:00.

14 THE WITNESS: Sorry. 3 hours? Sorry,
15 Mr. Satterley. 10:58:34

16 MR. DUBIN: So we're going until about
17 what time, Joe?

18 MR. SATTERLEY: 10:30 my time. I've got
19 to be in court at 11:00.

20 MR. DUBIN: Oh, my god. 10:30 your time. 10:58:42
21 That's what, 1:30 my time?

22 MR. SATTERLEY: Yep.

23 MR. DUBIN: Okay. All right.

24 Well, maybe we'll come back to this, but I
25 want to move on for a little bit. 10:58:52

1 BY MR. DUBIN: 10:58:55

2 Q I want to talk about home remodeling next

3 briefly. You have some notes in your -- the notes

4 you prepared about home remodeling.

5 You said, first of all, the house -- so 10:59:11

6 you discussed some construction in one of

7 Mr. Eagles' houses, correct?

8 A Correct.

9 Q Okay. Is that the house you visited?

10 A Yes. The house was built in -- I think it 10:59:30

11 was 1926.

12 Q Okay. So it's an old house.

13 Would you agree that there were likely

14 asbestos-containing materials used in the

15 construction of that home? 10:59:42

16 A No. I don't agree.

17 Q So not floor tile, not ceiling tile, not

18 wall material, not anything that you think would be

19 likely in a house built in the 1920s to contain

20 asbestos in that home? 11:00:01

21 A That's correct. I'm not aware of any

22 asbestos products being in any home constructed in

23 1926.

24 What was in the home on the walls, on the

25 ceiling was a plaster material, which is not 11:00:13

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1 unusual. And there was also some interesting 11:00:19
2 looking, I would almost call it plywood. But it's
3 really not because it had a lot of surface features
4 on it. But it was definitely wood -- wood paneling
5 of some sort that was painted over. 11:00:34

6 I asked about what was the tiles taken out
7 of the bathrooms, as well as in the kitchen, and
8 they said ceramic tiles.

9 I clarified with him -- I think I
10 testified about this last time that he said when 11:00:48
11 they took the wall down that there was wallboard
12 there. I asked him again about that, and he said,
13 no, it was plaster, not wallboard or joint -- or
14 your typical gypsum drywall board.

15 So I didn't see any exposure from the 11:01:09
16 remodeling of that house.

17 Q Okay. Let me make sure I understand.

18 First, who brought up the construction in
19 the interview?

20 A I did. 11:01:19

21 Q Okay. Now, you mentioned last time
22 discussing plaster versus drywall. Now you're
23 saying you also asked him about floor files?

24 A Well, they pulled the floor tiles. In the
25 bathroom, that was replaced, what was taken out or 11:01:35

1 covered over. And he said it was ceramic, not vinyl 11:01:41
2 asbestos tile, which makes sense because vinyl
3 asbestos tiles weren't made in the twenties.

4 Q Okay. So what else, if anything, did you
5 do while you were in the home to assess whether 11:01:57
6 there were asbestos-containing materials that either
7 were there then or had been prior to any renovation
8 when he lived there?

9 A That's what I did. I asked him about the
10 house. I asked him about, you know, where the 11:02:09
11 potential would have been, such as taking out tiles
12 or covering over tiles. There was just nothing
13 there, Mr. Dubin.

14 Q You asked him -- you asked them that about
15 tiles too is what you're saying? 11:02:29

16 A Yes, sir. Just wanted to make sure that
17 wasn't -- because, again, I'm not aware of any
18 asbestos products being used in construction of
19 homes in the 1920s.

20 Q Maybe we'll talk about that later. I just 11:02:49
21 want to make sure we've got everything.

22 Did you test any materials or take any
23 materials to test from the home?

24 A No, sir.

25 Q Was there ever any insulation in -- does 11:02:59

1 the house have an attic? 11:03:02

2 A It does.

3 Q Was there ever any insulation in the
4 attic?

5 A According to Mr. Eagle, they put -- there 11:03:10
6 was insulation up there.

7 Q Do you know what type of insulation?

8 A He said that it was -- looked like a paper
9 material.

10 Q Do you have any understanding of what that 11:03:26
11 kind of insulation would be if it looked like a,
12 quote, "paper material"?

13 A It's essentially blown-in cellose, which
14 is typical.

15 Q You said that -- so there's no -- there 11:03:45
16 was no drywalling anywhere in the home. Is that
17 what you're saying?

18 A As far as I could tell, yes.

19 Q Okay. Can plasters have asbestos in them?

20 A Yes. 11:04:06

21 Q Okay. What type or types of wall plasters
22 can have asbestos in them?

23 A The stuff that was developed '70s.

24 Usually they put 1 or 2 percent in so they can spray

25 it, motorized spray it. But that's not what 11:04:26

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1 happened back in the '20s or '30s or '40s. I don't 11:04:30
2 think that material started being used, especially
3 on the West Coast, until the 1950s or '60s. That's
4 not what's on there. That was all hand put on.

5 Q Okay. So when do you think that there 11:04:45
6 started to be asbestos in wall plasters?

7 A When they started guniting it to make
8 it -- give it what they call slip through the hose
9 to spray it.

10 Q Okay. Were there -- was there asbestos 11:05:00
11 used in other wall plasters that were not sprayed?

12 A Not during that time frame that I'm aware
13 of.

14 Q Okay. How about -- how about any products
15 in the house that you believe may have contained 11:05:20
16 industrial talc?

17 A I can't think of anything there that
18 contained industrial talc.

19 Q I may come back to this. I'm going to
20 move on for now. 11:05:43

21 Let's talk about the W.R. Grace facility.
22 In your initial set of notes, you didn't
23 mention the W.R. Grace facility, correct?

24 A Correct.

25 Q When did you first become aware that there 11:05:58

1 was a W.R. Grace facility -- you know, use 11:06:01
2 whatever -- near the Peterbilt facility?
3 A I don't quite recall when. I mean, I did
4 review Nony's expert report. He has it in there.
5 So I don't know if it was that, or I can't remember 11:06:36
6 if it was Sanchez's report or I was told by
7 Plaintiffs. One of the three.
8 Q Okay. But it's not something -- was it
9 something that you knew before you had found out
10 that it was -- had been raised by Defendant's 11:06:50
11 experts?
12 A Again, I just gave you three
13 possibilities. I'm not sure when I was told.
14 So, again, could have been Plaintiff.
15 Could have been Plaintiff. Could have been one of 11:07:06
16 defense experts.
17 Q Okay. And you said you reviewed the Nony
18 report. How did you get it?
19 A It was sent to me by Mr. Satterley -- or
20 not sent to me, but I think it was sent to -- this 11:07:20
21 was all sent to my assistant, who gave it to me.
22 Q Sent how?
23 A I imagine he sent it by email.
24 MR. DUBIN: And again, we'd request --
25 THE WITNESS: I don't know. I just know 11:07:34

1 that it showed up with the rest of the material here 11:07:36
2 at some point.

3 MR. DUBIN: Okay. And again, to the
4 extent it wasn't clear last time, we're requesting
5 all communications, even internal, about this case 11:07:47
6 at MAS.

7 BY MR. DUBIN:

8 Q So you got the Nony report. It's dated
9 October 4, 2023.

10 Can you tell me how long after that date 11:08:07
11 you received it?

12 A No, I can't.

13 Q Okay. His report has a series of
14 references regarding W.R. Grace.

15 Did you see that? 11:08:23

16 A I saw that.

17 Q Did you read them?

18 A The references?

19 Q Yes, the references.

20 A I just read what he said about it. I 11:08:29
21 don't have any issue about the references.

22 Q Okay. So you're not taking any issue with
23 any of the ways that Mr. Nony describes the
24 references in his report regarding W.R. Grace; is
25 that fair? 11:08:46

1 A That's sort of fair. But, I mean, 11:08:47

2 overall, I see there is no evidence that Mr. Eagles

3 was exposed to a W.R. Grace product. And that's

4 where the tremolite -- quote, tremolite, richterite,

5 winchite -- that's where it came from. 11:09:05

6 I think the evidence shows that neither I
7 nor Abraham found anything that resembled
8 vermiculite in Mr. Eagles' lung tissue.

9 Q Okay. Do you know approximately how far
10 away the facilities are from one another? 11:09:42

11 A I think it's in Mr. Nony's report. You
12 know, I'd have to look it up, how far away. I mean,
13 I'm not disputing it's whatever distance it is. I
14 just don't see any evidence that Mr. Eagles got
15 exposed. 11:10:10

16 Q Okay. Let's see what we agree -- do you
17 agree that the -- maybe we can short-circuit.

18 Do you agree that the Peterbilt facility
19 was within the zone of highest potential exposure to
20 hazardous levels of asbestos from the W.R. Grace
21 plant, according to the ATSDR?

22 MR. SATTERLEY: Objection. Calls for
23 speculation.

24 THE WITNESS: No. I don't agree.

25	/ / / /
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1 BY MR. DUBIN: 11:10:41

2 Q Okay. Have you -- did you look at that?

3 Did you read the 2005 ATSDR report about the W.R.

4 Grace facility in Newark, California?

5 A No. 11:10:57

6 Q Okay. So, if that report contains a zone

7 that was identified as the area with highest

8 potential exposure for exposure to hazardous levels

9 of asbestos from the W.R. Grace facility, you

10 haven't seen that? 11:11:14

11 MR. SATTERLEY: Objection. Calls for

12 speculation. Asked and answered.

13 BY MR. DUBIN:

14 Q You haven't seen that; is that fair?

15 MR. SATTERLEY: Objection. Asked and 11:11:23

16 answered. He's already testified that he didn't

17 review the report.

18 Why are you harassing him?

19 MR. DUBIN: He might have reviewed part.

20 You might have told you, Tim. I'm asking him the 11:11:30

21 question.

22 MR. SATTERLEY: Well, he's -- objection.

23 Asked and answered.

24 MR. DUBIN: You'll know if I'm harassing

25 him. So you can just -- can you answer the 11:11:38

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1 question? We're wasting time. 11:11:39

2 MR. SATTERLEY: No, no. I'm objecting, a
3 legitimate objection that you've already asked him
4 the question.

5 MR. DUBIN: Are you instructing the 11:11:47
6 witness not to answer?

7 MR. SATTERLEY: No.

8 MR. DUBIN: Okay. Then stop it.

9 THE WITNESS: As I just stated, I didn't
10 read the report. 11:11:55

11 BY MR. DUBIN:

12 Q Do you know how high fugitive emissions
13 were from the W.R. Grace facility?

14 A I don't recall that they actually had air
15 samples. I don't recall any air samples that were 11:12:18
16 ever taken inside the Peterbilt facility and then
17 more so inside his office in the Peterbilt facility.

18 So there was no evidence that I could see
19 that there was high fugitive emissions from the
20 plant that got in where Mr. Eagle worked. 11:12:41

21 Q Okay. Well, I'm asking you just about
22 fugitive emissions from the W.R. Grace plant.

23 Did you look at that?

24 A I don't recall if I looked at it or not.

25 If it was in Mr. Nony's report, I would have looked 11:12:55

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1 at it. But I don't recall. 11:12:58

2 Q Do you recall a study where individuals
3 looked at tree bark from --

4 A I did.

5 Q -- the area? 11:13:10

6 Sorry?

7 A I saw that.

8 I said I saw that data where they found
9 tremolite in the tree bark.

10 Q Okay. And but you -- did you read the 11:13:19
11 actual article?

12 A No. I've seen that data before in other
13 instances, like in Libby, Montana. I wasn't
14 disputing that data.

15 Q Okay. Do you know when the W.R. Grace 11:13:37
16 facility closed?

17 A I saw that, but I can't recall exactly
18 when that was.

19 Q So do you know even approximately how many
20 years after the W.R. Grace facility closed these 11:13:54
21 investigators were still finding asbestos in tree
22 bark from the facility?

23 A Well, I don't know when the tremolite or
24 the asbestos got into the tree bark. It would be
25 there for however long until somebody went and 11:14:19

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1 looked for it. 11:14:23

2 Q All right. Well, in your notes, you talk

3 about the idea of fibers floating into Mr. Eagles'

4 office. So let me ask you. Do you know whether his

5 office had windows? 11:14:48

6 A I don't recall.

7 Q And you obviously -- for any question that

8 I ask you about the W.R. Grace facility or how it

9 has potential for exposure there, you didn't discuss

10 any of that in your interview with him, right? 11:15:10

11 A No, I did not.

12 Q Okay. Where does the air inside a

13 facility typically come from?

14 A Typically, a facility will have an HVAC

15 system or some type of air movement from -- it could 11:15:27

16 be fans, et cetera. Out there, I don't know how

17 often they would have, you know, heat. But

18 typically, an HVAC system of some sort.

19 Q Right. Is it fair to say that the air

20 inside a facility typically circulates with the air 11:15:47

21 outside the facility?

22 A In some cases, yes. In some cases,

23 they'll have essentially an enclosed system.

24 Q So, I mean, you're not saying the

25 Peterbilt facility was hermetically sealed, right? 11:16:05

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1 A Well, of course not. There is always 11:16:10
2 going to be air intrusion inside the facility. But
3 again, there is no evidence -- no -- there is
4 absolutely no evidence that Mr. Eagle had any
5 exposure -- any exposure to W.R. Grace's vermiculite 11:16:22
6 plant, exfoliation plant while he was at that
7 facility. Excuse me. There is just no evidence
8 there other than speculation.

9 Q And the fact that he has richterite and
10 winchite, or what you called possible richterite and 11:16:43
11 possible winchite, in his tissue, right?

12 A Well, that's the primary -- I would look
13 at that as the primary evidence why he does not have
14 any exposure to the W.R. Grace plant. And I would
15 be happy to explain if you'd like. 11:17:01

16 Q Let me make sure I understand.
17 The fact that -- so W.R. Grace facility
18 was using vermiculite from Libby, right?

19 A Correct.

20 Q Libby vermiculite can be contaminated with 11:17:16
21 richterite and winchite, correct?

22 A Winchite, richterite, tremolite,
23 actinolite are all naturally-occurring asbestos
24 accessory minerals for the vermiculite in Libby,
25 Montana. 11:17:40

1 Q And those minerals in Libby can be 11:17:45
2 asbestiform, correct?

3 A They can.

4 Q And they have been associated with the
5 development of mesothelioma among miners and 11:17:54
6 community members in Libby, right?

7 A Well, that's not an area I'd testify
8 about. So I'm not disputing that there is
9 significant asbestiform, tremolite, actinolite,
10 winchite, richterite in the Libby, Montana 11:18:14
11 vermiculite. But that's part one of the reason.

12 Part two is something I can explain why
13 that portion of what was found in his lungs would be
14 inconsistent with an exposure from Libby, Montana.

15 Q Okay. I can't wait. We'll get there in a 11:18:36
16 second.

17 Let me first ask you, have you ever read
18 any studies regarding the bio-persistence of
19 vermiculite in tissue?

20 A Not for vermiculite, no. I'm not aware 11:19:01
21 that there is some bio-persistence.

22 Q Well, so one of the things you mentioned
23 before is that we didn't see vermiculite in his
24 tissue.

25 Do you know whether somebody who had an 11:19:12

1 exposure to vermiculite -- just the mineral 11:19:16
2 vermiculite, now, not accessory minerals -- that
3 ended in 1990 would be expected to have any
4 vermiculite in his tissue?

5 A If he's using a vermiculite product in the 11:19:35
6 1990s, I would expect it to still be in his lungs
7 with anything else he inhaled.

8 Q Based on what?

9 A Based on findings we've had in the past
10 where somebody who has those type of exposures on 11:19:51
11 lung tissue analysis. But when that was done many,
12 many years ago -- I don't know -- or I don't know if
13 I could find it.

14 Q Okay. We're going to request that, to the
15 extent you're going to rely on it. Otherwise, we'll 11:20:10
16 move to exclude it if we cannot review the data.

17 Incidentally, you're taking notes during
18 the deposition?

19 A Excuse me?

20 Q You're taking notes? 11:20:22

21 A No. I'm mostly doodling.

22 Q Okay. Well, we'll request your doodles,
23 if nothing else, just to see if you're drawing
24 caricatures of me.

25 A I'm not that good a drawer, but I do have 11:20:37

1 handwritten notes if you want to get to it or not 11:20:40
2 today.
3 Q Okay. Yes. We'll request those. We'll
4 leave that open as Exhibit 20.
5 (Exhibit 20 marked for identification.) 11:20:56
6 BY MR. DUBIN:
7 Q All right. And to the extent you have any
8 notes still from the last time, we can include those
9 in Exhibit 20.
10 So, all right, Dr. Longo, tell me why the 11:21:02
11 finding of richterite and winchite in the tissue is
12 inconsistent and it shows that he did not have any
13 exposure from the W.R. Grace facility.
14 A Well, if you have -- if you have the type
15 of exposure, in my opinion, to get a finding of 11:21:18
16 tremolite, winchite, richterite in somebody's lungs,
17 why isn't there any vermiculite particulates in
18 there, since the winchite, richterite on the
19 processed material is going to count for maybe a
20 half, at the most, 1 percent. What happened to the 11:21:40
21 other 99 percent? All been cleared out by the
22 lungs? They say talcum powder is cleared out by the
23 lungs, but can't seem to find it. When somebody has
24 -- excuse me -- when somebody has had fairly
25 significant exposure to it. 11:21:58

1 And we're dealing with where you can find 11:22:02
2 winchite, richterite, tremolite in cosmetic talcs.
3 And there is no -- I don't think there is any
4 dispute that Mr. Eagles' lung tissue has significant
5 talc particles, significant fibrous talc particles. 11:22:18
6 So you're looking at -- in my opinion, you're
7 looking for another source to account for the
8 tremolite or the winchite, richterite. And I just
9 don't think it's feasible.
10 Q Okay. Again, so you're saying that -- but 11:22:35
11 you have no published data on whether -- so you have
12 no published data, as I understand it, about how
13 long vermiculite is likely to stay in lung tissue,
14 right?
15 A Yeah. I don't recall if I've seen that or 11:22:54
16 not.
17 Q Okay. So let me give you a hypothetical.
18 You've got an individual who just has tremolite in
19 their lungs. And you're involved in a case, lung
20 tissue. You're involved in a case against a 11:23:10
21 chrysotile company.
22 Do you look at that and say, "Hey, I see
23 tremolite here, but no chrysotile, so that means the
24 tremolite must have come from something else"?
25 MR. SATTERLEY: Objection. Incomplete 11:23:29

1 hypothetical. 11:23:30

2 THE WITNESS: Well, one of the things we
3 do know -- your hypothetical -- your hypothetical is
4 correct, and we have solid evidence that they worked
5 at -- with chrysotile and in significant amount, 11:23:44
6 such as a chrysotile miner. They routinely found
7 tremolite, anthophyllite in the lungs. We know that
8 chrysotile has some bio-persistence in some people
9 where it migrates out, you know, into the lymph area
10 or outside on that issue of the lung. 11:24:10

11 So it just depends. If that is the
12 only -- if your hypothetical is the only thing we
13 have, no talc exposure, but he worked with -- but he
14 worked with chrysotile products and there's
15 tremolite found but no chrysotile, yes, I'd say that 11:24:32
16 was consistent with chrysotile exposure.

17 BY MR. DUBIN:

18 Q So the fact that -- so, to the extent that
19 amphiboles are associated with a high
20 bio-persistence, in other words, they stay in the 11:24:46
21 tissue for a very long time, right?

22 A Correct.

23 Q And so the fact that an amphibole may have
24 entered the body along with something like a
25 chrysotile and the chrysotile leaves before you -- 11:25:00

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1 before you perform a fiber burden analysis, that 11:25:04
2 doesn't mean that the tremolite wasn't from the
3 chrysotile, right?

4 MR. SATTERLEY: Objection. Incomplete
5 hypothetical. 11:25:13

6 THE WITNESS: If we -- you know, it's --
7 if we have a history of chrysotile exposure and no
8 chrysotile was found in the lung tissue, but we
9 don't have any -- but we don't have other exposures
10 other than chrysotile products, and it's only 11:25:32
11 tremolite, certainly that would be consistent with a
12 chrysotile exposure -- a significant chrysotile
13 exposure.

14 BY MR. DUBIN:

15 Q Now, let me make sure I understand what 11:25:48
16 you had said about the structures in your re- -- in
17 your analysis of the Gordon stubs.

18 MR. SATTERLEY: Gordon stubs?

19 MR. DUBIN: Sorry. I've got too many
20 other cases in my head. Aram. 11:26:09

21 MR. SATTERLEY: Okay. I thought you hired
22 Dr. Gordon to be your witness.

23 MR. DUBIN: Yeah. If I could get him out
24 of witness protection, wherever he's hiding.

25 / / / /

1 BY MR. DUBIN: 11:26:24

2 Q So --

3 MR. SATTERLEY: Why do you have to attack

4 everybody?

5 MR. DUBIN: Why? Because I don't trust 11:26:32

6 that guy as far as I can throw him. And two, I was

7 joking a little bit, but not very much. But I'm

8 sure you -- I'm sure if I picked your greatest hits

9 of how you feel about Dr. Sanchez and what you've

10 said about him, I'm pretty sure "attack" would be a 11:26:49

11 kind word for it, Joe.

12 MR. SATTERLEY: We've been going almost an

13 hour. Just let us know when you're ready for a

14 break.

15 BY MR. DUBIN: 11:27:05

16 Q Okay. Are you on Structure 6?

17 A Sorry?

18 Q Sorry. I was gonna -- in your report,

19 there is a Structure 6 that you said some would call

20 that richterite. And you said there's a lot of 11:27:18

21 debate sometimes which type is richterite.

22 Are you saying it's definitely one or the

23 other, richterite or winchite, or are you saying it

24 could be something else? I just want to make sure

25 I'm clear. 11:27:40

1 A Let me get to Structure 6. 11:27:42

2 Q Sure.

3 A Just give me a second.

4 Q No problem.

5 MR. SATTERLEY: Which report? 11:28:09

6 THE WITNESS: I'm saying it's definitely

7 one or the other.

8 MR. SATTERLEY: Which report?

9 MR. DUBIN: I think this is the SEM

10 confirmation analysis, page 8, No. 2, the second 11:28:15

11 one.

12 BY MR. DUBIN:

13 Q Is that correct?

14 What's the color of what you're looking

15 at? 11:28:32

16 A Well, the one I saw was the MVA SEM

17 confirmation analysis, No. 6 for --

18 Q I can call it up if it's easier.

19 A I've got it here.

20 Q Yeah, okay. 11:28:45

21 A This is -- I was just looking at it. This

22 would be No. 6 on the MVA SEM confirmation analysis.

23 Q Right. Here we are.

24 A And I may have one over in ours.

25 Q That's fine. I'm just talking about this 11:29:09

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1 one. 11:29:10

2 You said -- so you're saying it is either

3 richterite or winchite?

4 MR. SATTERLEY: Let me object.

5 Wait a second. You're looking at a 11:29:18

6 different report than what he said he's looking at.

7 He's looking at the MVA data, and you're showing him

8 the MAS data.

9 MR. DUBIN: Are we looking at Structure 6,

10 Jake? 11:29:31

11 THE WITNESS: Yeah. But this is not --

12 MR. KEESTER: This is Structure 6, yeah.

13 BY MR. DUBIN:

14 Q This is the structure I was asking you

15 about initially because -- 11:29:39

16 A Oh, sorry. Because that's not winchite or

17 richterite. That's fibrous talc.

18 Q Okay. In your deposition, you were saying

19 structure -- we were talking about Structure 6. I'm

20 not sure what the disconnect would be. 11:29:52

21 MR. SATTERLEY: The disconnect is you're

22 talking about the wrong report. The MVA report has

23 got the Structure 6.

24 MR. DUBIN: All right. Let's call the

25 other report up, Jake. 11:30:03

1 MR. SATTERLEY: That's the MAS report. 11:30:04

2 MR. DUBIN: That's fine.

3 MR. SATTERLEY: They both have "MAS" on
4 them. That's where the confusion is. One also has
5 "MVA." 11:30:11

6 MR. DUBIN: No problem. Somebody -- it's
7 just the wrong one was keyed in the outline. So
8 let's call up the correct report.

9 BY MR. DUBIN:

10 Q So you're saying this is either winchite 11:30:32
11 or richterite, right?

12 MR. SATTERLEY: Wait a second. That says
13 "Structure 4."

14 MR. DUBIN: Structure 6.

15 THE WITNESS: Let's see the -- make sure 11:30:46
16 we're on the right one.

17 No. That's the Alb. We want to go to the
18 B1b, No. 6.

19 There we go.

20 BY MR. DUBIN: 11:31:10

21 Q So that is winchite or richterite? Now
22 we're looking at JA23-006-B1b. It's labeled
23 Structure 6. Just make sure we're --

24 MR. SATTERLEY: Objection. Compound.

25 / / / /

1 BY MR. DUBIN: 11:31:26

2 Q Okay.

3 A Yes. That's what we're looking at.

4 Q And let's make sure Structure 9. Keep

5 going down. 11:31:39

6 A Structure 9?

7 Q Isn't there a Structure 9?

8 A No.

9 Q Probably in the other report then.

10 MR. DUBIN: Jake, pull up Structure 9 from 11:31:46

11 the other report.

12 MR. KEESTER: Can you see this?

13 MR. DUBIN: All right. Let me move to

14 another topic. Jake, we'll do this after a break.

15 BY MR. DUBIN: 11:32:07

16 Q All right. So I want to talk about --

17 let's just pull this down, Jake. And we'll talk it

18 through before we go back in here.

19 Let me ask you, are you offering an

20 opinion about where any richterite or winchite that 11:32:21

21 was found in Mr. Eagles' tissue came from?

22 A It came from his exposure to the cosmetic

23 talc. That's my opinion.

24 Q Are you aware of any geological literature

25 that has shown the presence of winchite or 11:32:43

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1 richterite in the Italian, Vermont, or Chinese talc 11:32:50
2 mines that Johnson & Johnson used?

3 A I don't know. That's really not my area
4 on the geological formation of -- I can tell you
5 that we have found the richterite/winchite in the 11:33:12
6 J&J Chinese analysis we've done in the past. So his
7 exposure is to cosmetic talc. And it's my opinion
8 this is -- everything in his lungs -- the
9 richterite/winchite, the tremolite, the talc plates,
10 the fibrous talc, just tremolite itself came from 11:33:47
11 his use of cosmetic talcs or body powder talcs.

12 Q Okay. So which --

13 MR. SATTERLEY: I'm asking for a break
14 again whenever --

15 THE WITNESS: Yes, that would be good. 11:34:02

16 MR. SATTERLEY: About five minutes ago I
17 requested a break.

18 MR. DUBIN: If the witness needs a break,
19 that's fine, Joe. I mean, I'm sure you can sit for
20 more than an hour. But that's fine. We have 11:34:11
21 limited time. We're going to have to take quicker
22 breaks. And again, I think we can go longer than an
23 hour between breaks. All right. So we'll take 10
24 minutes now.

25 THE WITNESS: Okay. Great. Thank you. 11:34:24

1 THE VIDEOGRAPHER: Off the record at 11:34:26

2 11:34 a.m.

3 (Recess taken.)

4 THE VIDEOGRAPHER: On the record.

5 11:43 a.m. 11:43:01

6 BY MR. DUBIN:

7 Q All right. So you said before the break
8 that you had found -- that you had reported
9 richterite in Chinese talc. Do you know what report
10 you ever reported richterite in Chinese talc? 11:43:18

11 A Well, it was a J&J. I may have also -- I
12 know we've found it a couple times. I'd have to
13 check and see. But I'm pretty sure one was Chinese.
14 And I'd just have to go back and look at them. This
15 would all be something that I've turned over to J&J. 11:43:42
16 Maybe, you know, the MDL samples. Not the Chinese,
17 but I'd have to look at the vermiculite in the --
18 excuse me, not vermiculite -- the Vermont, Italian,
19 and then it may have been Simon Greenstone Chinese.

20 Q Okay. I'm going to leave open Exhibit 22. 11:44:09
21 And if you could please provide us any report that
22 you believe of Johnson & Johnson that you believe
23 shows a finding of richterite, and including but not
24 limited to the Chinese report, if there is one?

25 (Exhibit 22 marked for identification.) 11:44:31

1 MR. SATTERLEY: Morty, if you -- the same 11:44:33
2 defense was in the Leavitt case. There was a
3 report, we used it in Leavitt -- the same W.R. Grace
4 defense was in the Leavitt case. So I can provide
5 it to you if you need me to. 11:44:46

6 MR. DUBIN: I know what he said in
7 Leavitt, but he didn't mention a Chinese report in
8 Leavitt. So I want to make that sure I've got
9 everything that he's relying on, including any
10 Chinese report where he's -- Dr. Longo is purporting 11:44:57
11 to find richterite, or at least I want to be clear
12 if there is none.

13 So I'm leaving that -- I'm going to leave
14 that open. And if the deposition continues, which I
15 assume it may, we can talk about whatever report 11:45:09
16 that is. I'm aware of the one. So I may ask you
17 about that.

18 BY MR. DUBIN:

19 Q Before I ask you more about that, you
20 mentioned winchite and richterite. 11:45:25

21 Have you ever reported finding winchite in
22 a Johnson & Johnson talc product?

23 A I think we've only reported richterite. I
24 don't know if I can recall a winchite or not.

25 Q So, when you are saying that you're 11:45:46

1 offering the opinion that the winchite or richterite 11:45:49
2 in Mr. Eagles' tissue came from talc, are you
3 offering an opinion that it came from Johnson &
4 Johnson talc?

5 A Well, there's three talc exposures. I 11:46:02
6 can't say it's from Johnson & Johnson. There's
7 Longs, there's the Safeway, and Johnson & Johnson.

8 Now, Johnson & Johnson, in my opinion, was
9 the primary exposure. But I can't say it came from
10 Johnson & Johnson versus one of the others. 11:46:21

11 Q What would be your basis for saying that
12 the winchite was from Johnson & Johnson if you have
13 never found winchite in any Johnson & Johnson
14 products?

15 A Well, let's back up. 11:46:35

16 I said richterite/winchite. We're looking
17 at an SEM analysis of a tissue sample versus a TEM
18 analysis of -- where you can get a better idea of
19 the chemistry. You won't have interfering factors,
20 such as sodium chloride maybe. That's all I'm 11:46:58
21 saying. This is SEM versus TEM.

22 Q Your analysis of the Johnson & Johnson
23 containers was by TEM, right?

24 A Correct.

25 Q Are you saying then that if what is in 11:47:20

1 Mr. Eagles' tissue is richterite, then you're saying 11:47:23
2 it's consistent with what you found in Johnson &
3 Johnson, but if it's winchite, then it's not?

4 A No. I was just answering your question.
5 Because in my opinion, it was somewhat misleading 11:47:38
6 that I was saying it could be richterite or
7 winchite. You know, you've got to look at the
8 sodium peak versus the potassium peak. And we're
9 dealing with a tissue analysis and an SEM EDS where
10 you can have, you know, interfering things 11:47:57
11 sometimes, depending on the -- depending on what you
12 have.

13 TEM, you have a better ability to -- to
14 determine one versus the other.

15 Q All right. But so what I'm trying to 11:48:20
16 figure out is what is your problem with the fact
17 that -- or not a problem, but what significance is
18 it that it's SEM?

19 So are you saying that you can't tell
20 whether it's consistent with your findings in J&J 11:48:32
21 because you can't tell whether what's in Mr. Eagles'
22 tissue is really richterite or winchite?

23 A No. Again, I'll start from the beginning.

24 It is a tremolite asbestos solid solution
25 series type minerals. We have either winchite or 11:48:55

1 richterite or actinolite. Certainly not actinolite. 11:48:58

2 We have a fairly sizable sodium peak. And
3 then we have a potassium peak. Because this is a
4 tissue sample and because it is SEM, you can't get a
5 small spot size like you can in TEM. With SEM, you 11:49:18
6 tend to get -- you tend to get -- sometimes you may
7 get some other materials in there, specifically if
8 it's a tissue sample, unless you can show one from
9 the other.

10 Now, we have other examples in there where 11:49:33
11 we're not seeing sodium, so maybe not. But to make
12 the -- so SEM can identify tremolite. It can
13 identify that it's -- that you have one of the solid
14 solution series. It's a little bit tricky on the
15 winchite versus richterite. That's all I'm saying. 11:49:53

16 Q All right. If the mineral that you've
17 found in Mr. Eagles' tissue is winchite, then would
18 you agree that that is not consistent with anything
19 you've found in Johnson & Johnson product before?

20 A It depends on where I found it and what I 11:50:13
21 was using. I've already told you now about --
22 you're saying if this, if that. I don't know. And
23 I'd have to look at what the finding is.

24 Right now, what we have is a richterite,
25 richterite slash, in my opinion, winchite slash. 11:50:33

1 Could be one or the other. 11:50:37

2 Q I don't know how to ask my question any
3 more clearly, so I guess we're not going to get an
4 answer.

5 MR. SATTERLEY: Objection. Argumentative. 11:50:50

6 MR. DUBIN: Well, I mean, I just don't
7 see --

8 MR. SATTERLEY: He's answered the
9 question.

10 BY MR. DUBIN: 11:50:56

11 Q The particle in the tissue -- in
12 Mr. Eagles' tissue is properly identified as
13 winchite. Okay? So now, however you identify, do
14 you know for certain it's winchite? The finding of
15 winchite in his tissue is not something that's 11:51:10
16 consistent with your testing of Johnson & Johnson,
17 correct?

18 MR. SATTERLEY: Objection. Asked and
19 answered now three times.

20 MR. DUBIN: Okay. He's not answering. 11:51:18

21 THE WITNESS: If your hypothetical is
22 correct and it could be positively identified as
23 winchite, based on the evidence in this case, I
24 would still call it a cosmetic talc exposure because
25 we don't have any evidence of any other exposure 11:51:40

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1 | that would account for that. | 11:51:44

2 BY MR. DUBIN:

3 Q Okay. And, when you say it's a cosmetic
4 talc exposure, I'm asking you whether you would say
5 it's consistent with your findings from Johnson & 11:51:55
6 Johnson products.

7 MR. SATTERLEY: Objection. Asked and
8 answered twice.

9 THE WITNESS: I believe what we found was
10 richterite. But, you know, compared to the overall 11:52:03
11 totality of what Johnson & Johnson has sold and the
12 overall thousands and thousands and thousands of
13 tons, I'm assuming, we have a small population. But
14 I don't -- but mainly, I don't have any -- any other
15 evidence of any other exposure that would account 11:52:29
16 for a natural -- naturally-occurring asbestos
17 material.

18 BY MR. DUBIN:

19 Q Well, an exposure to a Libby amphibole
20 from vermiculite could account for winchite and 11:52:44
21 richterite in the tissue?

22 MR. SATTERLEY: Objection.

23 BY MR. DUBIN:

24	Q	Correct?
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25 MR. SATTERLEY: Assumes facts not in 11:52:52

1 evidence. Calls for speculation. 11:52:52

2 THE WITNESS: I don't have any evidence
3 that that happened. If you're looking at -- if
4 you're in Libby, Montana, sure.

5 BY MR. DUBIN: 11:53:04

6 Q All right. I want to talk a little bit
7 about talc use next.

8 A Sure. Okay.

9 MR. DUBIN: Could we call up, Jake,
10 Tab 15. It's already an exhibit. It's one set of 11:53:17
11 your notes.

12 MR. SATTERLEY: What are you calling up?
13 I'm sorry.

14 MR. DUBIN: It's Dr. Longo's notes. The
15 tab number is just so that Jake can find it. It's 11:53:34
16 Tab 15.

17 MR. KEESTER: I'll pull it up.

18 BY MR. DUBIN:

19 Q We can go to page 9.

20 Okay. First part -- I want to ask you 11:54:12
21 about this. It says "Of the three baby powder
22 products, it's my opinion that Mr. Eagles used
23 Johnson's baby powder the most, 1955 to 2017,
24 followed by the Longs and Safeway baby powder
25 products, 1950s, 1960s to 1980s or 1990s." 11:54:28

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1 Do you see that? 11:54:32

2 A I do.

3 Q First, are you indicating here by listing

4 '50s, '60s to '80s or '90s that Mr. Eagles stopped

5 using Longs or Safeway baby powder in the 1990s? 11:54:47

6 A I mean, that's what -- what he stated. He

7 didn't know if it was 1980s or 1990s.

8 Q Okay. You've used some terms about either

9 primary or majorities.

10 Do you have any opinion about the 11:55:10

11 percentage of use of Johnson & Johnson products

12 versus the other talcum powder products that

13 Mr. Eagles used?

14 A The only opinion I have, it's more likely

15 than not greater than 50 percent. 11:55:39

16 Q And explain to me one more time what your

17 greater than 50 percent opinion is based on?

18 A That Mrs. Eagles said that's what she --

19 that's what she bought only, that Mr. Eagles stated

20 that he started using it in 19 -- I mean, he started 11:56:01

21 using Johnson & Johnson in 1955 for about a year,

22 and started at 13, and that in -- that most of the

23 products, more than 50 percent, maybe 51 percent,

24 were the other two. Then I guess it's about

25 25 percent each maybe. 11:56:23

1 Q Let's break that down a little bit. 11:56:27
2 So Mr. Eagles also purchased talcum
3 powder, right?
4 A Correct. He would also purchase it. And
5 he said he would look for the cheapest stuff, stuff 11:56:39
6 on sale, et cetera.
7 Q And that the cheapest stuff was typically
8 the store brands, correct?
9 A The Longs and the Safeway.
10 Q Okay. And so you're saying Mrs. Eagles 11:56:54
11 said that when she purchased, she would buy
12 Johnson & Johnson, right?
13 A Correct. You have that. And you also
14 have that the Johnson's baby powder went up to 2017.
15 Q We'll talk about that in a minute. But I 11:57:18
16 just want to ask, how much -- so did you talk to the
17 wife -- I think one of the things that you said in
18 the last deposition was that Mr. Eagles' wife was
19 the one doing the shopping.
20 Is that something she told you in the 11:57:41
21 interview or something that you knew from some other
22 source?
23 A Well, yeah, she told me that she did more
24 shopping than he did and that she only purchased
25 Johnson & Johnson baby powder. 11:57:57

1 Q Did you see Mr. Eagles' testimony that 11:58:00
2 they normally shopped together when they went
3 shopping?

4 MR. SATTERLEY: Objection.

5 THE WITNESS: I don't remember the 11:58:10
6 "normally." I understand Mr. Eagles went with
7 Mrs. Eagles at times, but I understood that she did
8 it more than he did.

9 BY MR. DUBIN:

10 Q How often are you assuming that 11:58:22
11 Mrs. Eagles went shopping and bought talcum powder
12 without Mr. Eagles?

13 A Just more times than she went with him, or
14 he went with her.

15 Q So I want to make sure I'm understanding. 11:58:41
16 So, if they were shopping together, which
17 brand would they buy?

18 A If they were shopping together and she was
19 doing the shopping, I don't know if I have that
20 answer. 11:58:57

21 Q Okay.

22 A I would assume, if he went with her versus
23 her going with him, it would have been Johnson &
24 Johnson. But that's just my assumption.

25 Q Do you have any record basis for that 11:59:07

1 assumption? 11:59:10

2 MR. SATTERLEY: Objection. Assumes facts

3 not in evidence.

4 MR. DUBIN: The facts aren't in evidence

5 then. 11:59:14

6 BY MR. DUBIN:

7 Q So you don't have a basis for the

8 assumption?

9 A That's why it's an assumption.

10 Q Okay. So I just want to make sure I 11:59:25

11 understand.

12 So, whenever Mr. Eagles is going in

13 shopping, he's buying less expensive products,

14 presumably because he cares about price, right?

15 A Well, let me -- you know, let me just look 11:59:42

16 over my notes. He did care about price, but he

17 stated his preferred talcum product was Johnson &

18 Johnson, and that's what he started out with. That

19 would be on page 2.

20 Mr. Eagles stated he purchased Johnson & 11:59:57

21 Johnson baby powder from Safeway, Luckys, and Longs

22 stores, but also indicated that he started getting

23 some of the store brands because they were cheaper.

24 That's on page 3.

25 Q Okay. Have you finished your answer? 12:00:17

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1 A I'm just looking to see what else we have 12:00:19
2 here. Give me a second.

3 That's it. So that was his preferred
4 brand. I took that as, if he could find something
5 cheaper from time to time -- if he could find 12:01:02
6 something cheaper, he would buy it. But that was
7 his preferred brand. And his wife only purchased
8 Johnson & Johnson for him.

9 Q I guess I just -- so he's looking to save
10 money. 12:01:18

11 Did you ask whether there was ever any
12 discussion or disagreement with them about, like,
13 "Well, why are you buying the more expensive brand?
14 If I was there, I would have bought the cheaper
15 brands." Anything conversations like that? 12:01:31

16 A I did not have any conversations like
17 that, and I didn't see in testimony or conversations
18 like that from defense attorneys asking him, that I
19 can recall.

20 Q I'm just trying to figure out, like, why 12:01:46
21 would she be buying him more expensive products that
22 when he shops he didn't feel he needed?

23 A I guess you'll have to --

24 MR. SATTERLEY: Asked and answered.

25 / / / /

1 BY MR. DUBIN: 12:02:06

2 Q That wasn't something you inquired -- was

3 that something you inquired about?

4 A No. What I inquired about, what they used

5 the most. It was Johnson & Johnson. What was the 12:02:17

6 preferred brand? It was in the deposition. It was

7 Johnson & Johnson. What were the years of use?

8 Johnson & Johnson had '55 all the way to 2017 versus

9 the others. I think it's petty obvious myself.

10 But, you know, that's just me. 12:02:33

11 Q Okay. In your notes, if we go to page 5.

12 A Okay. I'm there.

13 Q Okay. So it should be from

14 approximately -- oh, I see.

15 In your notes, you reflect that he 12:03:01

16 started -- sorry. Let's go to page 9 instead.

17 A Page what?

18 Q Nine.

19 A All right.

20 Q So here you write that he started personal 12:03:19

21 use at age 13 in 1955; is that correct?

22 A Correct.

23 Q Have you seen other information indicating

24 that he started later than that?

25 A At the age of 13, 1955. I don't recall 12:03:50

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1 seeing anything later than that -- than 1955. If 12:03:54
2 you can show that to me, I'd be happy to look at it.

3 MR. DUBIN: Sure. Let's make the next
4 exhibit in order, which I think it's 23, your
5 declaration of 3/7/23, if we can pull that up. 12:04:17

6 MR. SATTERLEY: What exhibit number is
7 this.

8 MR. DUBIN: I think it's 23. Go to
9 paragraph 32 -- paragraph 32 of the declaration. So
10 the declaration is in front. 12:05:10

11 (Exhibit 23 marked for identification.)

12 BY MR. DUBIN:

13 Q Okay. First, this is your declaration?

14 A I do.

15 Q And you say, "I understand that Mr. Eagles 12:05:39
16 has used Johnson's baby powder and generic brands of
17 baby powder, including Longs and Safeway, from the
18 1960s and through the 2000s."

19 So why did you write that?

20 A At the time, that's what I thought. 12:06:03

21 Q Based on what?

22 A At the time, that's what I thought.

23 Certainly 1960s to 2000s.

24 Q So here you have him starting later and
25 ending earlier, right? 12:06:31

1 A No. I've got him starting later and 12:06:36
2 ending later, according to his testimony. But -- so
3 that's what I thought at the time.

4	Q	Based on what?
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5 A Well, I don't recall. Based on -- based 12:06:56
6 on whatever information I was getting.

7 Q Well, it says here, "I understand that
8 Plaintiff Marlin Eagles has provided deposition
9 testimony in this case."

10	Was it based on his deposition testimony?	12:07:16
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11 A I don't recall that far back.

12 Q Okay. Was this based on information that

13 Plaintiffs' counsel provided you?

14 A I don't recall that far back.

15	Q Okay. Can you tell me the process of	12:07:30
16	writing the declaration?	

17	Did you draft it?
----	-------------------

18 A Again, I draft a lot of these or a lot of
19 information that has been provided before, and I
20 don't -- no, I don't start these from scratch 12:07:44
21 anymore because a lot of these are just -- goes over
22 the same material.

23 Q So was it you or somebody at MAS who did
24 the first draft of this?

25	A	No. I'm always given information like	12:07:59
----	---	---------------------------------------	----------

1 this. I don't know where that information came from 12:08:02
2 because it's too long ago. But, no, I don't write
3 these whole things from scratch anymore.

4 Q And again, to the extent it's not
5 otherwise clear, if something was transmitted to you 12:08:15
6 that gave you that information prior to your writing
7 this declaration, we are requesting it as well as
8 any communications related to the preparation of
9 this.

10 But suffice it to say, so you prepared the 12:08:28
11 declaration. And it says this. And did -- I assume
12 Plaintiffs' counsel never told you that that
13 information in paragraph 32 was in any way wrong.
14 Is that correct?

15 A That's correct. 12:08:47

16 Q And did you ever see anywhere in any of
17 Mr. Eagles' depositions that he first used baby
18 powder products on himself in his 20s, 30s or maybe
19 even 40s?

20 A What I have is in my -- in my notes where 12:09:13
21 he stated about some of the different ones. That's
22 all I got is what he stated.

23 Q Okay. To the extent there was deposition
24 testimony to that effect, is that something you
25 would typically note and put in your notes? 12:09:33

A On page 9 of my notes, I have, of the three baby powder products, and I have from Johnson's baby powder, 1955 to '20, followed by Longs and Safeway products, '50s, '60s to '80s or '90s. I just put in there what he stated.

12:09:50
12:10:07

6 Q You indicated -- you can take this down,
7 Jake -- in your notes that Mr. Eagles continued to
8 use Johnson & Johnson, according to your notes, up
9 until 2017, correct?

11 Q Did you ask him why he stopped using
12 talcum powder in 2017?

13 A Well, technically, he didn't stop using
14 cosmetic talcum powder in 2017. What he stopped
15 doing was full body. 12:11:51

16 I don't recall if he told me why he
17 stopped the full body. But he continued to use it
18 when he played tennis up to 2021. And he stopped
19 playing tennis because he started getting -- because
20 I guess the symptoms of the mesothelioma that was 12:12:06
21 developing in him, he couldn't play.

22 Q So, when you say 2017, you're intending

23 that to only be used on the body?

1 long did you model applications on his feet? 12:12:32
2 How long did you have him doing that
3 until?
4 A From 1969 to 2021 when he stopped.
5 Q You didn't have any discussion about why 12:12:52
6 he stopped using it on his body?
7 A No.
8 Q So you tested two bottles in this case?
9 A I did.
10 Q Neither was Johnson & Johnson, correct? 12:13:11
11 A That is correct.
12 Q So presumably the plaintiff had no
13 Johnson & Johnson talcum powder in his possession.
14 Is that correct?
15 A That's correct. 12:13:26
16 Q The two bottles, how old were they?
17 A I don't know. I don't know if there was
18 any dates on or not. I don't know how many there
19 are.
20 Q Did you have -- you had the actual bottles 12:14:01
21 in your possession?
22 A Yes, sir. I believe so.
23 Q Do you still have them?
24 A I would assume so.
25 Q Okay. 12:14:12

1 MR. DUBIN: We're going to request, and 12:14:14
2 we'll follow up, to meet and confer about what makes
3 sense, whether we need the physical bottles or
4 photographs of the remaining sides of the bottles to
5 the extent they're not all captured in your report. 12:14:25
6 And we'll just make that a discovery request. I'm
7 not going to leave an exhibit open for it.

8 BY MR. DUBIN:

9 Q But you don't know whether those
10 bottles -- 12:14:38

11 MR. SATTERLEY: I'm going to object. Fact
12 discovery is closed.

13 MR. DUBIN: Okay. Well, I don't care if
14 you object. We can talk about it later.

15 BY MR. DUBIN: 12:14:47

16 Q Dr. Longo, you don't know whether there is
17 any dates on those bottles on portions that you
18 didn't photograph that would indicate when they may
19 have been manufactured, right?

20 A I'm looking at the photographs now. There 12:14:59
21 is no date on them.

22 Q And I don't have those reports here. What
23 sides have you -- are photographed?

24 A Well, we do a photo like get the whole
25 bottle. And then we zero in on the printing on the 12:15:16

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1 back so you can read it (indicating). 12:15:20

2 Q Okay. I'll take a look at that and see
3 whether we still need them nor not. We'll follow up
4 by letter.

5 Okay. So a little bit about your 12:15:36
6 calculation. So you have a calculation for body
7 use. And you have 62 years of use and
8 approximately, what, 12,896 applications?

9 A Correct.

10 Q And that's based on an average of using it 12:16:04
11 on his body four days a week for 62 years?

12 A Correct.

13 Q And the amount of powder that you're
14 saying he puts on his body per application is about
15 2 to 3 teaspoons; is that right? 12:16:27

16 A Well, he said it was more than
17 2 teaspoons. So somewhere between, you know, 2 1/2
18 to 3 teaspoons. So I just used 2 1/2, I believe it
19 is.

20 Q So 8 grams. Just -- okay. So 8 grams is 12:16:48
21 2 1/2 teaspoons?

22 A Each teaspoon is 3.8 grams. So
23 2 teaspoons would be 7.6. A half of a teaspoon
24 would be 1.9, almost 2. So that would be 9.5. So I
25 took a conservative 8 grams. 12:17:19

1 Q And I guess, to close out the last -- so 12:17:24
2 is it your testimony that those two bottles of
3 non-J&J talc that you tested, that those had been in
4 Mr. Eagles' home since the 1990s?

5 A I don't have any information one way or 12:17:42
6 the other. I wasn't there to get them. Whatever
7 they stated that they've been in their house for
8 however long I guess is what it is.

9 Q Okay. Well, I'm just saying, you said
10 that you don't -- he stopped using the generic 12:17:58
11 brands in 1990. Is that your testimony?

12 MR. SATTERLEY: Objection.
13 Mischaracterization of the prior testimony.

14 THE WITNESS: I'm not saying he did or he
15 didn't. It's not me saying it. That's the 12:18:09
16 testimony I have. That's just an issue of fact. I
17 wasn't there.

18 BY MR. DUBIN:

19 Q Okay. And so you also talk about the use
20 in his shoes. And so he's putting talcum powder on 12:18:22
21 his bare foot, then putting his sock on, and then
22 putting talcum powder also in his shoes before
23 putting the shoe on, right?

24 A Right.

25 Q Okay. And so it's -- you say using a 12:18:44

1 conservative 1 gram per shake would equal 4 grams of 12:18:50
2 talcum powder. So he's using -- so let's see -- so
3 how much is that? How much is that in teaspoons
4 that he's putting on his foot and how much in
5 teaspoons is he putting on each shoe? 12:19:10

6 A Well, he has one application per day. So
7 52 years times 52 weeks, one application per day.
8 That comes to 8,102 applications.

9 Q I'm just trying to focus on one individual
10 circumstance. So he's putting -- first, how many 12:19:43
11 teaspoons is he putting on his feet, and then how
12 many teaspoons is he putting in his shoes?

13 A Well, I'm saying 1 gram per each shake. A
14 teaspoon is 3.8 grams. So that would be one --
15 approximately 1/4 of a teaspoon, 25 percent of a 12:20:02
16 teaspoon on his feet and 25 of a teaspoon in his
17 shoe.

18 Q On each foot you're saying?

19 A On each foot. So you have 4 grams total.
20 You've got 1 gram, 1 gram. 1 gram on his foot, 12:20:22
21 1 gram in his shoe. Second shoe, 1 gram on his
22 foot, 1 gram in his shoe. That's 4 grams. And a
23 teaspoon is 3.8 grams of talcum powder.

24 Q So Mr. Eagles is already putting -- what's
25 the purpose of putting baby powder in your shoes? 12:20:43

1 A He said to keep -- help keep them dry. 12:20:48

2 What did he say about putting it in his
3 shoes? I'd have to go back to the earlier because I
4 just wanted to . . .

5 Yeah. I apologize. I thought I had it in 12:22:51
6 here, what he stated. But what I recall is to keep
7 his feet dry. But --

8 Q Is this a typical way of using talc powder
9 on your feet, as you understand, putting it on your
10 feet before you put them in the sock and then also 12:23:10
11 putting talcum powder in the shoe, even when you're
12 wearing a sock?

13 A I don't know how common it is, but I've
14 seen it a number of times in the past of individuals
15 who used it for sports shoes, keep the feet dry, 12:23:26
16 help them from smelling, help the shoes from
17 getting -- from smelling, as a deodorant. So that's
18 what I've seen in the past. I couldn't tell you
19 what cases, but I've seen this in the past.

20 Q Uh-huh. In your calculation, your 12:23:48
21 cumulative use calculation, you do not include use
22 on his children; is that right?

23 A Yes. I did not include it.

24 Q Why not?

25 A Because I got from the testimony that he 12:24:14

1 very rarely did it. It was mostly his wife that 12:24:15
2 changed the diapers.

3 Q And do you recall any testimony from
4 Mr. Eagles that what he was putting in -- the brand
5 that he was putting in his shoes, that he would 12:24:39
6 refer to it as talcum powder rather than baby
7 powder?

8 A I'm sorry. Could you ask that again?

9 Q Do you recall him referring to the
10 materials that he was putting in his shoe saying it 12:25:20
11 would say "talcum powder" rather than "baby powder"?

12 A I think he said it both ways. And she
13 said it both ways. They would call it baby powder
14 and they would call it -- I think I'm the one who is
15 calling it talcum powder. 12:25:37

16 Q But no question Johnson's baby powder
17 would say "baby powder" on it, right?

18 A No question about that.

19 Q Now, you've done an estimate of the number
20 of application and the amount of talc Mr. Eagles 12:25:57
21 would have used. You have not done any cumulative
22 dose analysis for the amount of asbestos that
23 Mr. Eagles would have been exposed to, right?

24 A Correct. I've not done any cumulative
25 fiber years. 12:26:22

1 Q And in order to do -- to take the number 12:26:24
2 of applications and turn that into an asbestos dose,
3 one of the things you would need to know is the
4 intensity of any exposures to asbestos?

5 A That's correct. 12:26:40

6 Q We'll come back to dose if we have time.
7 Did you see in the Abraham materials
8 reference to welding type particles?

9 A I don't recall seeing that. Let me see.
10 Do I have his report? Yes. Someplace. 12:27:02

11 I don't recall that. Well, I don't want
12 to waste time looking for it. Do you want to point
13 it out?

14 Q Let me just ask you, are you familiar
15 with -- what are welding type particles in a lung 12:27:36
16 burden analysis or a tissue diagnosis analysis?

17 A Welding type particles, if it's in fact
18 welding type particles, would be metallic materials
19 that is given off during the welding process because
20 of the molten metal. And they're typically 12:27:53
21 microscopic, would have some -- would have
22 components of either the welding rod as well as
23 whatever the metal is.

24 Q To the extent that any of the expert --
25 any of Plaintiffs' experts say that there were 12:28:12

1 welding type particles in Mr. Eagles' tissue, would 12:28:15
2 you have an opinion about what the likely source of
3 that is?

4 MR. SATTERLEY: Objection. Calls for
5 speculation. 12:28:24

6 THE WITNESS: What the source is? If your
7 hypothetical is correct, that there is bona fide
8 welding products in his lung, microscopic metal
9 appears, then, yes, I would expect it would be from
10 welding. 12:28:49

11 BY MR. DUBIN:

12 Q All right. Well, we've got only about an
13 hour left with you today. So why don't we take our
14 last break. We'll try to take a quick one. Let's
15 make it a five-minute break to give people an 12:29:02
16 opportunity to stretch, and then we'll go.

17 A Okay. Thank you.

18 Q No problem. Bye.

19 THE VIDEOGRAPHER: Off the record.

20 12:29 p.m. 12:29:16

21 (Recess taken.)

22 THE VIDEOGRAPHER: On the record.

23 12:34 p.m.

24 BY MR. DUBIN:

25 Q All right, Dr. Longo, obviously we're not 12:34:19

1 going to finish today. I wanted to ask you some 12:34:24
2 preliminary things about chrysotile, chrysotile
3 identification, and then we may have to take up some
4 other things about the facts of the case later.

5 First, as I understand it, you testified 12:34:38
6 before that you used some sort of software to assist
7 in the calculation of refractive indices; is that
8 right?

9 A It didn't really -- yeah, it was software
10 that we no longer use. It came with the -- it was 12:34:54
11 given to us by a Dr. Bow, an NVLAP auditor. He's
12 the one who told us that we should quit being an
13 NVLAP, quit wasting our money. And it was
14 essentially like a spreadsheet where you would put
15 in what you're looking at and put in the matching 12:35:18
16 wavelengths, and it would give you the refractive
17 indices.

18 Q So, just to be clear, when you were using
19 that software, it didn't fully automate the process.
20 The analyst still needs to identify what they're 12:35:37
21 looking at?

22 A Yeah. There was no automation to it.
23 There was -- that's, I think, where the confusion
24 was. You'd have to put in the matching wavelengths.
25 And it is essentially the same thing as looking it 12:35:51

1 up on a -- you know, on a chart, such as Dr. Su's 12:35:54
2 charts or others.

3 Q And I think you would agree with me that
4 that first step, the analyst properly describing the
5 color that they're seeing so that it can be 12:36:06
6 transferred into a wavelength, that's fundamental to
7 PLM dispersion staining, correct?

8 A Yes.

9 Q And why are you no longer using the
10 software? 12:36:22

11 A Because we're now using 1.560 refractive
12 indices fluid, and there was never a spreadsheet --
13 didn't have the spreadsheet type information on it.
14 And he also -- there's an update out there -- he
15 says there's a -- I understand there may be an 12:36:35
16 update that I haven't requested yet. So we've just
17 gone back to looking at the -- looking at the charts
18 ourselves.

19 Q Are there published refractive indices
20 ranges for Calidria chrysotile in 1.560? 12:36:53

21 A I think it's all in 1.550. That's
22 published -- the only published data I've seen is
23 for the Coalinga that I can -- that I recall off the
24 top of my head is Dr. Macron's. But his were all
25 mine samples, not the processed material, my 12:37:23

1 understanding. 12:37:25

2 Q And was that in 1.550 or 1.560?

3 A I believe it was 1.550.

4 Q And I want to ask you -- let's make the

5 next in order -- what Exhibit are we on? Is that 12:37:47

6 24?

7 (Exhibit 24 marked for identification.)

8 MR. KEESTER: That's right.

9 MR. DUBIN: I'm going to make the next

10 exhibit ISO 22262-1. If we can we call that up. Go 12:38:04

11 to page 36. Scroll down a little bit.

12 BY MR. DUBIN:

13 Q I want to first talk about what talc looks

14 like in 1.550.

15 MR. SATTERLEY: Can you blow that up? 12:38:54

16 It's very, very hard to read.

17 MR. DUBIN: Blow up the part that says

18 "talc fibers."

19 THE WITNESS: What page is that on the --

20 BY MR. DUBIN: 12:39:05

21 Q 36. At least of the PDF.

22 A Okay. Can we go down to the bottom?

23 Q 28.

24 A 28. Okay.

25 Q You with me? 12:39:18

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1 A I'm with you. 12:39:19

2 Q I just want to first just talk about what

3 talc itself should look like in 1.550 oil. Okay.

4 A Sure.

5 Q And so this says for the RI parallel to 12:39:35

6 the fiber lengths -- we're talking about parallel --

7 talc fibers have a range of 1,589 to 1,600 resulting

8 in a pale yellow dispersion color when immersed in

9 1.550 RI liquid.

10 First of all, is that correct? 12:40:00

11 A Yeah. You can have a range like that.

12 Sometimes a little bit lower. Sometimes higher.

13 But that's -- I don't argue with that.

14 Q But, typically, talc -- elongated talc in

15 parallel should be a pale yellow, and the range they 12:40:14

16 give here is 1,589 to 1,600, right?

17 A That's what they give.

18 (Exhibit 25 marked for identification.)

19 BY MR. DUBIN:

20 Q Okay. And just so we can see something 12:40:25

21 about talc in general, not just talc fiber, I'll

22 mark as the next exhibit in order, which will be 25,

23 just the IARC 2010 monograph on talc. And if we

24 could call that up and go to page 289.

25 No. It should be 1.13. 12:41:11

1 Okay. Here we go. Here, again, we're 12:41:23
2 talking about the indices of refraction of talc.
3 And it says biaxial with alpha 1.539 to 1.550, gamma
4 1.589 to 1.594.

5 And, again, so consistent -- what you're 12:41:40
6 going to see from talc is generally -- in parallel
7 is generally a pale yellow, right?

8 A That's what it states.

9 Q And talc plates, what is the typical
10 refractive indices of a talc plate? 12:42:01

11 A It's typically -- it's going to be the
12 beta. And it's not going to change. It won't
13 change when you turn it. If it's just the talc
14 plate, you won't get any birefringence, but you're
15 getting the same things. 12:42:22

16 You know, it's one of the few things I
17 agree with Dr. Sanchez, when he stated in his
18 deposition he had in this case. And I -- but what
19 you can see there is what we have been stating on
20 talc. When you determine the birefringence 12:42:41
21 calculation, you're up in the -- you know, the 0.05
22 to 0.06 versus your chrysotile birefringence that
23 are down in the low range.

24 Q I just want to talk about what a talc
25 plate should appear like in 1.550 oil. And this is 12:42:57

1 indicating that talc plate should be pale yellow, 12:43:03
2 right?

3 A I'm not sure it states that anywhere
4 there.

5 Q Okay. Well, what color -- you told me 12:43:20
6 that the talc --

7 A You'll get yellows to gold. You know, you
8 have to define what pale yellow is. You can get
9 yellow-gold in 1.550. We've seen it not yellow-gold
10 at times, but depending -- you may have more of a 12:43:38
11 goldish-red. So it's not always the same range of
12 refractive indices. But one thing that is always
13 the same is the birefringence difference between
14 that and chrysotile.

15 Q Okay. Well, I'm asking you just first 12:43:56
16 question: What is the refractive indices range for
17 a talc plate, just a plane talc plate?

18 A If it's a plane talc plate and you're in
19 the top, the refractive free range is whatever the
20 beta is, there is no range. Because it's going to 12:44:14
21 give you the -- no matter what direction you turn it
22 in, it's going to give you the same thing.

23 Q Okay. So there is no range. What is the
24 refractive index of a talc plate?

25 A That one says 1.589 to 1.594. We 12:44:31

1 typically don't record the range of typical plates. 12:44:36

2 We're looking at what the fibrous talc is.

3 Q Okay. But I'm just asking a talc plate.

4 What color should a talc plate appear to

5 be to the analyst's eye in 1.550 oil? 12:44:55

6 A You're typically going to have some form

7 of yellow or goldish-yellow. Depends on the

8 instrument, I guess, and what -- what light source

9 you have. And it's going to be a particle.

10 Q Let's assume you have a non-colored light 12:45:18

11 source. What color should a talc plate be in 1.550

12 oil?

13 A You could have yellows. You could have

14 golds. I'm not sure I could say there is my any one

15 color. You know, one type of hue of yellow or 12:45:39

16 yellowish-gold. And then when you turn it into the

17 perpendicular direction, you get the exact same

18 thing.

19 Q I'm talk -- okay.

20 What support do you have for the fact that 12:45:59

21 if an analyst looks through a microscope at a talc

22 plate in 1.550 with no colored light, that it can

23 appear gold, yellow-gold?

24 A What -- I've seen a number -- you know,

25 I've seen it both on -- sitting at the microscope, 12:46:20

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1 that's my interpretation of it. It could be a 12:46:22
2 goldish -- a goldish color, a yellowish-goldish
3 color. So that's what I would -- that's what I
4 would state it is at times. A bright pale -- you
5 know, a pale yellow versus, you know, the 12:46:42
6 birefringence, you get a bright pale yellow versus a
7 more dull pale yellow for chrysotile. It just
8 depends, Mr. Dubin. You can't just give it a
9 universal this is what it's going to look like.

10 Q Okay. Well, let's assume you're not 12:46:59
11 dealing with an elongated particle. You're using
12 PLM dispersion staining and you're identifying talc
13 plates. Is there -- are there published ranges for
14 what refractive index the talc plate should be in,
15 therefore what color they should appear in? 12:47:21

16 A Probably.

17 Q Okay. Have you ever seen one that says a
18 talc plate can in 1.550 oil can be golden yellow?

19 A Typically, they don't say the colors a lot
20 of times. Like they're saying there the talc plate 12:47:43
21 on the beta direction can be anywhere from 1.589 to
22 1.594. You know, that's six points there. That can
23 be totally different color. I mean, not totally
24 different, but it can be different shades of
25 whatever you're using there for that. 12:48:02

1 Q Okay. I want to ask you about -- we'll 12:48:18
2 make it the next exhibit in order, the report by
3 Mr. Poye on Johnson & Johnson Shower to Shower,
4 which I think you've seen before. Let me just ask
5 you about an image. It's -- we'll make -- it's 12:48:37
6 Tab 46, and it will be Exhibit 25.

7 MR. SATTERLEY: 25 was the IARC. So this
8 will be 26.

9 MR. DUBIN: 26. Thank you.

10 Let's go to page 21. 12:49:00

11 (Exhibit 26 marked for identification.)

12 BY MR. DUBIN:

13 Q Just as an example here, we've got talc
14 here in 1.550 refractive index oil. Is that what
15 talc looks like in the microscope when immersed in 12:49:16
16 1.550 refractive index oil?

17 A Sometimes.

18 Q What do you mean by "sometimes"?

19 A Sometimes it will look that. Sometimes it
20 will look different. Sometimes it's talc plates 12:49:33
21 versus fibrous talc. And depending on the
22 orientation. But for talc plates, I mean, you
23 change the orientation, it typically will stay the
24 same versus fibrous talc, if you have it parallel
25 versus perpendicular, you're getting your different 12:49:52

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1 |         refractive indices.                                     12:49:55
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2 Q So let me ask you, the image on the right,
3 is that -- the talc plates you see there, is that
4 the correct color of talc in 1.550 oil?

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5      A      I don't -- again, there's no correct or      12:50:06
6      incorrect.  This is what this one happens to show.
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7 Q Well, the colors that are being produced
8 by the mineral, how -- what is -- what is
9 controlling what color is being shown?

A The crystalline structure of the talc plates. And in the orientation, in this case, since it's a plate, laying flat, it's the beta directions. And the beta directions are usually pretty close to the gamma direction for the fibrous talc, as been stated in the last thing you showed and the thing before that. Not exact, but it's pretty close.

17 Q Okay. Let's take the next in order -- I

18 guess it's 26, just one of your Chinese samples.

19 (Exhibit 27 marked for identification.)

20 MR. SATTERLEY: You're now 27. 12:51:04

21 MR. DUBIN: I'm at 27. Damn it. You're
22 better at this than I am, obviously.

23 MR. SATTERLEY: Just trying to keep them
24 straight.

25	MR. DUBIN: Thank you. Let's make that	12:51:14
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1 one of your Chinese samples. Let's go to -- it's 12:51:16
2 Tab 47. Call it up.
3 MR. SATTERLEY: Can you tell me which
4 report this is from?
5 MR. DUBIN: It's from the September 16, 12:51:26
6 2020 report. Let's go to page 68. Can we try to
7 flip that image, rotate it.
8 BY MR. DUBIN:
9 Q So we're looking at an image from page 68
10 of this. I just want to understand -- so there's a 12:51:51
11 rounded structure up here that's near the talc flake
12 debris. Is that a talc plate?
13 A Yes. Talc flake/plate, same thing.
14 Q Okay. And you're identify -- first of
15 all, remind me again why your images are so much 12:52:17
16 more golden than what we looked at for Mr. Poye's
17 lab?
18 A I don't know what type of scope Mr. Poye's
19 lab is using. This one -- this was the Olympus with
20 the tungsten filament light, which gives you the 12:52:41
21 kind of what you say is more golden on the yellows
22 and golds.
23 Q Okay. And so, just to be clear, so on
24 this microscope that you're using to do PLM
25 dispersion analysis based on color, you had a color 12:53:03

1 lightbulb; is that right? 12:53:08

2 A Well, it's a tungsten lightbulb which
3 gives you sort of an orangish hue, sort of a more
4 golden-yellow-orangish hue, yes.

5 Q Okay. So tell me, what is different about 12:53:25
6 the appearance in parallel of the chrysotile versus
7 the talc plate?

8 A Well, the chrysotile is fibrous. It's got
9 an RI of 1.563. And then we see a fibrous talc
10 along with it, and it's completely different. I 12:53:50
11 mean -- and I'm not saying that talc flake debris
12 doesn't have some chrysotile in it. But this type
13 of microscope, it was too small to distinguish
14 versus the one up at the 12:00 position and the one
15 at the -- what do I say that is? -- about a 5:00 12:54:10
16 position, 5:00 p.m., 5:00 a.m. position.

17 Q Okay. Let's look at another image here at
18 296, page 296. Let's rotate that.

19 So, again, these larger rounded
20 structures, those are talc plates, correct? 12:54:40

21 A Correct.

22 Q And we have a similar colors on the
23 structure that you're calling chrysotile, right?

24 A Similar to what?

25 Q Similar to the talc plates. 12:55:00

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1 A There are some areas, but they're not -- 12:55:04
2 they're just plates. They're not fibrous. So we
3 have chrysotile.

4 Q Okay. And you know, there -- on a lot of
5 these particles, including the talc plates, you can 12:55:19
6 see some red. Let's focus on the tile plates. You
7 can see some red around the edge of the tile plates.
8 What's that?

9 A That's the talc plate. There may be some
10 chrysotile in there, but this microscope -- this PLM 12:55:34
11 microscope does not have the resolution, so it's a
12 talc plate. I believe if you'll show this in
13 perpendicular, you can see the difference in some of
14 these where you may have in fact fibrous talc
15 associated with the talc plate or potentially 12:55:52
16 fibrous chrysotile. But it's too small to get, you
17 know, dispersion staining on.

18 Q I'm just trying to figure out the edges.
19 You see it on essentially all of the talc plates,
20 right, this red around the edge? Do you see that, 12:56:10
21 purplish-red or red around the edge of the talc
22 plates?

23 A Yes.

24 Q Does that mean that -- what -- then what
25 is the refractive index of these talc plates, would 12:56:28

1 you say? 12:56:34

2 A I would say these talc plates are maybe
3 1.565 or 64 and then 1.550. Because you're getting
4 more of the red, where the chrysotile has more of
5 the golden yellow, 67 to 70. 12:57:00

6 Q So, if you were asked -- just to identify
7 what mineral this talc plate is, let's take the one
8 that's largest. So, if we go up to the left of the
9 particle. So it's -- you would -- just so I'm
10 clear, what refractive index would you report based 12:57:27
11 on what you're observing for that particle?

12 A Which one?

13 Q You know, the one that looks more like a
14 thumbprint. It's -- yeah, the one the cursor just
15 went over. 12:57:42

16 A I don't know. I'd probably want to take
17 some other particles of similar matching wavelengths
18 versus what we have there. I probably would first
19 start and look at the elongation with the box
20 30-nanometer filter, because talc plates don't show 12:58:02
21 up.

22 So I don't know what I would call that at
23 this moment. I might want to do some more work on
24 it.

25 Q Well, what color would you say -- again, 12:58:14

1 you can identify any talc plates. We can take the 12:58:16
2 one that's up slightly to the right of the one you
3 just called chrysotile. What color would you call
4 that for purposes of determining its refractive
5 index? 12:58:28

6 A That would be somewhere in the 1.563 to
7 1.566, 67. Somewhere around there.

8 Q Remind me what color that corresponds to.

9 A What you see there.

10 Q So are you calling it red? Are you 12:58:43
11 calling it golden yellow? What color are you
12 calling it? I want to know what you see in that
13 particle.

14 A I see sort of a goldish-yellow and some
15 red on the outside. I don't -- typically, you want 12:58:59
16 to take the very end, but this is a particle plate,
17 since it's not fibrous. And we do have some single
18 fibers in there, but they're too small to really
19 resolve. And that's what I would call it, based on
20 just that photograph. 12:59:19

21 Q So I'm just saying, I think one of the
22 things you told me before is that when you do this
23 analysis, you're basing it on what color it is at
24 the edge of the particle, right?

25 A With our new microscope, yes, we are, 12:59:31

1 because we have better resolution. Here we have -- 12:59:33
2 every particle has some of the red around it. And I
3 don't know if that's just an artifact or not. But
4 I'm just -- you asked me, and I'm telling you.

5 Q Okay. I understand. So but your view -- 12:59:49
6 the red -- you agree the red on these pictures may
7 be an artifact, right?

8 A Maybe. I don't know. I'd have to focus
9 in on it to see if we -- you know, the focus is off,
10 et cetera. So I'm giving you my best estimate based 01:00:04
11 on the photograph.

12 Q Okay. And so at some point you changed
13 microscope, as I understand it, and no longer have
14 the tungsten lightbulb, right?

15 A It's LED. 01:00:24

16 Q Now, I want to ask you about -- so before
17 you changed, did you have various different PLMs
18 before that, some of which had tungsten lightbulbs,
19 some of which didn't, or did they all have a
20 tungsten lightbulb? 01:00:44

21 A We had 3D exact same microscope.

22 Q Okay. All with the tungsten lightbulb?

23 A Older -- old PLM microscopes.

24 Q Okay. So I want to mark next, which,
25 unless Joe corrects me again, will be 28. 01:00:59

1 MR. SATTERLEY: That's a correct number 01:01:04
2 this time.

3 MR. DUBIN: Well, even a broken clock is
4 right twice a day.

5 (Exhibit 28 marked for identification.) 01:01:10

6 BY MR. DUBIN:

7 Q A report you did for MAS for -- about an
8 RT Vanderbilt product around the time when the
9 chrysotile findings were coming out in Johnson &
10 Johnson. So it's Tab 20. 01:01:23

11 MR. SATTERLEY: 28?

12 MR. DUBIN: Sorry. It's Tab 20. It will
13 be Exhibit 28. I'm just telling Jake what tab it
14 is.

15 MR. SATTERLEY: We don't have the tab 01:01:39
16 notebook, so we can't follow along.

17 MR. DUBIN: Yeah, I know that.

18 BY MR. DUBIN:

19 Q So do you have any memory of this, Foushee
20 versus RT Vanderbilt Holding Company? Not that you 01:01:46
21 have to remember. I'm just curious.

22 MR. SATTERLEY: I can't see the top.

23 BY MR. DUBIN:

24 Q Do you recall anything about this?

25 A Not really. But I'm sure if we go through 01:01:58

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1 it, it will refresh my memory. 01:02:01

2 Q All right. For today, I just want to look
3 at one image. So if we can go to page 22.

4 Here is a picture from your PLM lab of
5 what's identified -- being identified as a talc 01:02:22
6 fiber bundle.

7 And first, do you notice that we don't
8 have as much of the golden yellow color that we saw
9 in the Johnson & Johnson pictures with respect to
10 the talc? 01:02:42

11 A Yes.

12 Q Do you know, why would that be if you were
13 also using a tungsten lightbulb for this analysis?

14 A This, as I understand it, is from a
15 different mine, Vanderbilt mine. So you're going to 01:03:00
16 have probably -- I don't think there is any iron.
17 So you'll see different -- different materials and
18 different wavelengths -- I mean, different -- you'll
19 see different matching -- matching wavelengths to
20 different sources. 01:03:22

21 Q Well, why are all of the other yellow
22 things here -- why aren't they also -- why haven't
23 they turned orange if it's your light that was
24 causing the problem?

25 A You just asked why it was more gold. 01:03:39

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1 Well, those particular plates -- 01:03:41

2 Q Well, you have a lot of yellow here.

3 A -- that too would have the -- tend to

4 produce those colors. Why is the Vanderbilt

5 different? I don't know. I haven't really thought 01:03:51

6 about it.

7 Q Okay. Will you agree -- let's -- this is

8 a graphic I've asked you about before. I'll just

9 make it next in order and ask you about it. It will

10 be 29. It's just a PowerPoint. And it's Tab 75. 01:04:16

11 (Exhibit 29 marked for identification.)

12 MR. DUBIN: All right. So --

13 MR. SATTERLEY: Is that the same one you

14 used in the Valadez case?

15 MR. DUBIN: Correct. 01:04:47

16 BY MR. DUBIN:

17 Q I want to talk about the effect of --

18 let's assume that the old images are impacted by a

19 tungsten lightbulb and they're yellower for that.

20 That would mean that if the talc plates are oranger 01:04:59

21 than they should be because of the light, then that

22 would also apply to what you're calling chrysotile

23 in the image, right? It's not selective.

24 A I don't know if it's selective or not,

25 depending on the dispersion from talc plates, but it 01:05:21

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1 still provides the same -- if that is in fact 01:05:29
2 happening, then it gives you sort of a balance that
3 it's going to be something different between the
4 two.

5 Q Right. What is -- 01:05:39

6 A Normally it --

7 Q But, for example, here where we see that
8 the leaves are blue in one, you know, and the owl is
9 blue, you know, if we want to figure out what your
10 older images look like to the microscopist, if 01:05:52
11 there's a yellow light, then we have to adjust in
12 our minds both the color of the talc plates and the
13 color of what you're calling chrysotile, right?

14 A No. I don't agree with that at all. You
15 just -- whatever reason you want to make the colors 01:06:09
16 of the talc plates, we're looking at the dispersion
17 staining for both parallel and perpendicular ranges
18 and see how it matches up with what we feel is --
19 what our opinion is chrysotile in these products.

20 So whatever you want to do, that's fine, 01:06:29
21 or whatever your experts want to do, that's fine.
22 But that's not something we have to do.

23 Q Well, I'm just asking you, if you're -- so
24 whenever you -- before your Valadez report, whenever
25 you were presenting images of what you claim was 01:06:44

1 chrysotile in Johnson & Johnson, the images have 01:06:49
2 been taken on a microscope with a yellow light,
3 right?

4 A It has had a tungsten light that produces
5 more yellow vibrational wavelengths, right. 01:07:01

6 Q And is there any reason why that tungsten
7 light would only selectively make the talc plates
8 more yellow -- more orange or golden than what you
9 were calling chrysotile?

10 A Well, it's primarily the talc plates from 01:07:21
11 China. I'm not sure about the other ones.

12 But again, we're calculating it on the
13 birefringence, not how yellow one is the other and
14 making a comparison. We have a number of
15 chrysotile/talc inner growths from those same 01:07:39
16 microscopes where you can easily, easily see the
17 difference in the birefringence. So I just disagree
18 with this whole line of questioning that somehow
19 it's causing some artifact where it's not making it
20 be chrysotile as we're calling it. 01:07:56

21 Q Let me -- I'm going to skip ahead, and
22 I'll come back to some of these other things.

23 Let me just make sure I understand.

24 So we talked about this particle before.

25 I'll make the next exhibit in order the -- your 01:08:18

1 Valadez report. 01:08:23

2 MR. DUBIN: And, Jake, that's Tab 55, if

3 we want to call it out.

4 MR. SATTERLEY: Exhibit 30?

5 MR. DUBIN: That will be Exhibit 30. 01:08:36

6 (Exhibit 30 marked for identification.)

7 MR. DUBIN: And, if we can go to page 32.

8 Sorry. Is this the Valadez report, Jake,

9 Tab 55? And then page 32? It should have images.

10 MR. KEESTER: Is it this one? 01:09:23

11 MR. DUBIN: Yeah. Let's rotate it.

12 BY MR. DUBIN:

13 Q So I asked you about this particle before,

14 and I think you -- well, let me just ask you. What

15 color were you calling this? 01:09:46

16 A A brownish-gold I guess. More on the

17 brownish side, brownish-gold, which what we're

18 seeing in the 1.560.

19 Q So this is M71614-001CSM-001 chrysotile.

20 Okay? 01:10:04

21 MR. DUBIN: And let's go to page 37 above

22 this. Scroll down because it should have the

23 correct image. Let's go down. Okay. Let's flip

24 that. Scroll that down.

25 / / / /

1 BY MR. DUBIN: 01:10:35

2 Q And we're looking at M71614-001-CSM-002.

3 What color are you observing in that structure?

4 What color are you calling it for purposes of the

5 RI? 01:10:49

6 A For the brownish part there, sort of a

7 brownish-gold I would call it. Let's see. 1.565.

8 That's pretty close to what I would say it is.

9 Q Okay. And if we go to page 42.

10 And, if we go to page 42 and scroll down. 01:11:16

11 Let's flip that. What color are you observing here

12 for purposes of the RI calculation?

13 A That's higher -- that's a lower -- that's

14 a lower wavelength than what we've been looking at,

15 but it's going to be a higher refractive indices. 01:11:43

16 So I would probably call that -- I might get closer

17 to 1.570 than 1.568. You do have some red in there

18 around the edge that I don't see in some of the

19 other particulates. So I would call it a little bit

20 lower. Primarily, what you're seeing is yellow, 01:12:07

21 yellow-gold.

22 Q Okay. And how is that the color that's

23 distinct in your mind from the talc plates that

24 we're observing on this image?

25 A Well, I would say most of the talc plates 01:12:28

1 are -- they've got a darker brown. But this is not 01:12:31
2 the only thing -- this is not the -- the only thing
3 we're using to identify this, one that has to be
4 fibrous. If you go to the elongation where we have
5 it in the 530-nanometer, you can get a better look 01:12:47
6 at the structure of this as compared to everything
7 else. And typically, talc plates don't show up very
8 well in the one -- in the elongation, you know, in
9 this -- in the single polar elongation, our
10 cross-polars at the -- essentially at the 45-degree 01:13:12
11 angle. You kind of focused in here, but this is not
12 the only data that we use to make an identification.

13 Q Okay. We'll get back to that. I guess --
14 let me just back up for a second.

15 Has your laboratory -- prior to your 01:13:38
16 becoming involved in talc litigation, has your
17 laboratory done any PLM work for Calidria?

18 THE REPORTER: For what?

19 MR. DUBIN: Calidria, C-A-L-I-D-R-I-A.

20 We can take this down, Jake? 01:14:05

21 THE WITNESS: The only one we've done
22 would have been the -- some kind of -- you know,
23 some exposure studies with Calidria. And I think it
24 was the RG144 that was purchased by the plaintiff's
25 attorney sometime -- no, that was -- strike that. 01:14:27

1 With RG144 or 145 when Mr. Hatfield wrote 01:14:30
2 to -- not to Union Carbide, but to -- I think it was
3 RCAC or something like that who bought it out. We
4 got 5 pounds of material. I'm not sure we did any
5 PLM on it until we got involved in this, when we 01:14:51
6 thought it might be a -- might be a -- because of
7 the sharp fibers, might be sort of a standard.

8 BY MR. DUBIN:

9 Q Do you know what Visbestos or Super
10 Visbestos are? 01:15:04

11 A Super Asbestos?

12 Q Super Visbestos or Visbestos?

13 A I'm not sure.

14 Q You don't recognize it as the name of a
15 drilling mod that was composed of Calidria asbestos? 01:15:23

16 A Oh, we've analyzed that in the past.

17 Q So let's just mark that as the next in
18 order. I guess that's 31.

19 MR. SATTERLEY: What did you call it
20 Visbestos? 01:15:38

21 MR. DUBIN: V-I-S-B-E-S-T-O-S.

22 THE WITNESS: Oh, I misunderstood. I
23 thought you were calling it "super-asbestos."

24 (Exhibit 31 marked for identification.)

25 / / / /

1 BY MR. DUBIN: 01:15:49

2 Q It's Super Visbestos or Visbestos.

3 A I would have recognized Visbestos.

4 Q Okay. And you can see here, this is from

5 Union Carbide -- they're being referred to as Union 01:15:59

6 Carbide Calidria samples, MAS, January 2011, right?

7 A That's correct.

8 Q Okay. And if we can go to page 6, we can

9 see that there's an analyst. And that's somebody

10 who did PLM analysis at MAS, correct? 01:16:26

11 A Correct.

12 Q And you see here that they -- he gives a

13 refractive index of -- for Calidria of 1.560/1.553,

14 correct?

15 A Correct. 01:16:51

16 Q Okay. And so what colors would that be in

17 parallel and perpendicular?

18 A In 1.550, 1.560 is going to be where the

19 golden color should be. And 1.553 in the -- which

20 is alpha is -- should be more in the bluish-purple 01:17:21

21 range.

22 Q Maybe we can look at the 1.560 range.

23 Let's make sure we have that. So just the other

24 numbers here. Look at page 7. There's other

25 numbers here. You have 1.560 to 1.553, right? 01:17:44

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1 A Correct. 01:17:50

2 Q So I'm going to mark the next exhibit in

3 order 32. And that will be some slides, internal

4 reference 53.

5 MR. SATTERLEY: That last one, Exhibit 31, 01:18:00

6 did you include entirety of the report as that

7 exhibit?

8 MR. DUBIN: Yeah, I included the whole

9 report.

10 MR. SATTERLEY: Thank you. 01:18:13

11 (Exhibit 32 marked for identification.)

12 BY MR. DUBIN:

13 Q Okay. Now, we've done this chart before,

14 so I thought -- so 1.560, what color is that at the

15 temperature in your lab in 1.550 oil? 01:18:32

16 MR. SATTERLEY: I'm confused, Morty.

17 You've got the top 1.550 there, but then the

18 refractory index in the report says 1.560 and 1.553.

19 So I'm confused.

20 MR. DUBIN: Yeah. One is the oil. The 01:18:55

21 other is the reported refractive index.

22 THE WITNESS: What we're seeing for what

23 we have here, 1.560, those are typically in the

24 golden -- darker gold area.

25 / / / /

2 Q So I'm going to mark the next exhibit in
3 order 32. And that will be some slides, internal
4 reference 53.

5 MR. SATTERLEY: That last one, Exhibit 31, 01:18:00
6 did you include entirety of the report as that
7 exhibit?

8 MR. DUBIN: Yeah, I included the whole
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10	MR. SATTERLEY: Thank you.	01:18:13
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11 (Exhibit 32 marked for identification.)

12 BY MR. DUBIN:

13 Q Okay. Now, we've done this chart before,
14 so I thought -- so 1.560, what color is that at the
15 temperature in your lab in 1.550 oil?

16 MR. SATTERLEY: I'm confused, Morty.
17 You've got the top 1.550 there, but then the
18 refractory index in the report says 1.560 and 1.553.
19 So I'm confused.

20 MR. DUBIN: Yeah. One is the oil. The 01:18:55

21 other is the reported refractive index.

22 THE WITNESS: What we're seeing for what
23 we have here, 1.560, those are typically in the
24 golden -- darker gold area.

25	/ / / /
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1 BY MR. DUBIN: 01:19:20

2 Q Okay. So you're telling me, if we look at
3 the Su charts for your temperature in that oil, that
4 1.560 is going to be golden yellow?

5 A More of a dark gold. Not so much the 01:19:35

6 yellow. You've got to get to higher refractive
7 indices to start seeing it. And again, this is for
8 1866b chrysotile. This has -- this has absolutely
9 nothing to do with the short-fiber type materials.

10 This is very misleading, Mr. Dubin. I'm sorry. I 01:19:56
11 don't mean to be disrespectful, but this has nothing
12 to do with what we're seeing.

13 Q Okay. I don't understand what you're
14 talking about.

15 So Calidria is a short fiber chrysotile, 01:20:09
16 right?

17 A Calidria is a short fiber chrysotile, but
18 we see -- you're going to see, because of the size
19 of the fiber -- and I know -- I know Dr. Sanchez
20 disagrees with this. The size of these bundles, 1 01:20:26
21 to 2 microns in width, give you different refractive
22 indices for the colors. And we showed that with our
23 1866b milled material. And it's been my opinion all
24 along is that the, quote, the height of the bundle
25 changes the refractive indices. Also, the source of 01:20:53

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1 the bundle. 01:20:58

2 So you're using 1866b here and calling it
3 "Super Visbestos Testing Report." That's totally
4 misleading.

5 Q I'm sorry. I'm using what? It is a 01:21:08
6 Visbestos testing report.

7 A But these levels you're taking from the
8 ISO 22262-1, and they're using the 1866b chrysotile
9 standard to generate this.

10 Q No, no, no. 01:21:27

11 But, Dr. Longo, the only part of this that
12 has to do with ISO is where the ISO ranges are on
13 the bottom. I'm just asking you, is it correct that
14 1.560 in your -- in your lab temperature would be
15 around here, this 1.561 mark, that color? 01:21:46

16 A No.

17 Q Okay. All right. So we're going to have
18 to go through this, I guess, next time. And I'll
19 just mark the -- Su's 22 as the next in order. So
20 that's -- that will be 33. 01:22:07

21 MR. SATTERLEY: What are you marking?
22 What you just showed him is --

23 MR. DUBIN: Su's article, "The Dispersion
24 Staining Technique and its Applications."

25 MR. SATTERLEY: Did you mark that chart 01:22:16

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1 there as Exhibit 32? 01:22:17

2 MR. DUBIN: Sorry. I thought that -- the

3 graphics?

4 MR. SATTERLEY: Yeah, the graphic.

5 MR. DUBIN: I'll make those 33. I'll make 01:22:24

6 the actual Su 34. Okay. We'll just mark that. I

7 don't need to look at it today, but we're going to

8 have to go through this to confirm what color you're

9 calling things.

10 But let's go back to the 33 for -- let's 01:22:39

11 call that back up for a second.

12 (Exhibit 33 marked for identification.)

13 (Exhibit 34 marked for identification.)

14 MR. SATTERLEY: I'm confused, Morty.

15 Exhibit 34 is -- what is it for Dr. Su? 01:22:45

16 MR. DUBIN: It includes the Su tables. I

17 think Dr. Longo understands we're going to go have

18 to go through this because he's telling me different

19 colors than I would expect him to.

20 MR. SATTERLEY: I'm still not clear what 01:23:00

21 you marked as 34.

22 MR. DUBIN: 34 is the actual tables that

23 you used in order to get the colors out of the

24 refractive index that's reported by MAS.

25 MR. SATTERLEY: Since you're not sharing 01:23:16

1 it with me and it's not being displayed, what is it? 01:23:17
2 Is it an article? Is it Dr. Su's article?
3 MR. DUBIN: Right. It's Dr. Su's article.
4 I'm just putting it in the record so he has it.
5 MR. SATTERLEY: From 2020? 01:23:26
6 MR. DUBIN: This is 2022.
7 MR. SATTERLEY: 2022. Thank you.
8 MR. DUBIN: I just put it in there so
9 nobody had to search around for it.
10 BY MR. DUBIN: 01:23:34
11 Q And then, if we go to the next slide here.
12 So -- and, again, for the perpendicular, do you know
13 what color 1.553 would correspond to in your lab
14 temperature?
15 A 1.553 are down in that range. Is that 01:23:55
16 what you found there, 1.553? It's a purplish-blue.
17 It's usually pretty close to what the 1866b is.
18 Q Okay. If we go up one more. Go back up
19 one more slide back to the -- so are you now -- do
20 you now agree that 1.560 is going to be in this 01:24:16
21 range that we have circled here?
22 A Well, just take the number, yes, 1.561 to
23 1.58 isn't going to be showing the, quote, magenta.
24 Not for this size it won't. I would say of the --
25 what we have in the 1.563 to 1.565. 01:24:40

1 Q So I just want to understand, because for 01:24:52
2 a long time now you've been saying that the reason
3 why your -- the talc may be showing different -- the
4 chrysotile in the talc may be showing different
5 colors is because it's a Calidria type chrysotile. 01:25:07

6 Are you now saying that it doesn't look
7 like Calidria either?

8 A No. I'm not saying that. I'd have to --
9 you know, this was done a while ago. I'd have to go
10 back and take a look at that. I don't know if we 01:25:24
11 have the temperature on there or not at that time.
12 You know, where this was being done versus the PLM
13 lab, you know, this is -- I haven't seen this for a
14 long time.

15 Q Okay. 01:25:41

16 A 1.560, the Calidria, if it's going to have
17 the magenta color, I don't know if we still -- we
18 don't have these samples anymore because Union
19 Carbide wanted them back right away, or what else
20 might be in there. So I'm at a disadvantage to try 01:26:00
21 to go back to a report and see what was done. I
22 don't know what the parallel, perpendicular
23 materials are. You know, I still stick to our SG210
24 versus what this is.

25 Q Okay. First, we'll request any additional 01:26:22

1 information you have in your files about this 01:26:24
2 project, including any PLM images.

3 And let me ask you. You said that --

4 MR. SATTERLEY: Let me place an objection.

5 THE WITNESS: Can you increase the 01:26:33
6 magnification a little bit so I can -- this is so
7 long ago, I'd like to get the image.

8 MR. DUBIN: The whole report will be an
9 exhibit.

10 MR. SATTERLEY: Let me object to your 01:26:41
11 demanding that Dr. Longo go do some research and
12 produce items for you.

13 MR. DUBIN: Okay. So, Joe, just so I
14 understand your position. So, if you're asking our
15 experts to go find anything in their files, that's 01:26:54
16 not appropriate, right?

17 MR. SATTERLEY: I'm objecting to your
18 demand of Dr. Longo to go search files from 12 years
19 ago to try to find something for you.

20 BY MR. DUBIN: 01:27:07

21 Q Okay. Well, if it -- I think this has a
22 project number. You can look things up by project
23 number, correct?

24 A Again, I still can't see it.

25 Q Okay. Well, we can go to the full report 01:27:19

1 if we need to. We already marked that. It was 01:27:20
2 Exhibit 32.
3 So you see it has project numbers?
4 A M62609. Did I get that correct?
5 Q 52609. 01:27:34
6 A 52609. Okay.
7 Q Okay. And that's something that's
8 searchable at MAS, right?
9 A Yes.
10 Q Okay. And you said you don't have the 01:27:43
11 samples because Union Carbide demanded them back.
12 So did you get these directly from Union
13 Carbide?
14 A Yes. I think Chatfield or somebody
15 brought it in. These were not materials that we 01:28:03
16 had.
17 Q Are you talking about the --
18 A I'd have to look at the whole report. You
19 know, we're talking, what, 10, 12, 13 years ago --
20 12 years ago. I'd have to look at the report. But 01:28:16
21 I don't think we were able to keep these as -- as
22 samples.
23 Q Did MAS ever take the NIST proficiency
24 testing that related to Calidria?
25 A Yeah, you've asked that a few times. I 01:28:37

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1 don't know. I don't think -- I looked up for it 01:28:40
2 once and was -- and couldn't find it, so I don't
3 know.

4 Q Okay. Have you --

5 A If you looked through your FOIA -- FOIA 01:28:52
6 demand from NVLAP. And if it wasn't in there, I
7 don't know where it is.

8 Q Okay. So have you seen the 2000 -- have
9 you seen the NIST proficiency test, the summaries,
10 for Calidria? 01:29:14

11 A I haven't seen what they stated. I saw
12 what Chatfield stated, that, you know, a number of
13 labs failed.

14 Q Okay. Well, we're out of time. Maybe
15 we'll start there next time. Okay. It's 1:30, I 01:29:33
16 guess.

17 A All right. Have a good afternoon,
18 Mr. Dubin.

19 THE VIDEOGRAPHER: Off the record,
20 1:29 p.m. This concludes today's testimony given by 01:29:42
21 William Longo, Ph.D. Total number of media units
22 used was three and will be retained by Veritext
23 Legal Solutions.

24 (TIME NOTED: 1:29 P.M.)
25

DECLARATION UNDER PENALTY OF PERJURY

I, WILLIAM LONGO, Ph.D., the witness herein, declare under penalty of perjury that I have read the foregoing in its entirety; and that the testimony contained therein, as corrected by me, is a true and accurate transcription of my testimony elicited at said time and place.

Executed this _____ day of _____ 2023, at

_____, _____.

(City)

(State)

WILLIAM LONGO, Ph.D.

REPORTER'S CERTIFICATION

I, Leslie Johnson, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were administered an oath; that a record of the proceedings was made by me using machine shorthand which was thereafter transcribed under my direction; that the foregoing transcript is a true record of the testimony given.

Further, that if the foregoing pertains to the original transcript of a deposition in a Federal Case, before completion of the proceedings, review of the transcript [] was [] was not requested. I further certify I am neither financially interested in the action nor a relative or employee of any attorney or any party to this action.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: October 24, 2023

A handwritten signature in cursive script that reads "Leslie Johnson". The signature is written in dark ink and is positioned above the printed name.

LESLIE JOHNSON

CSR No. 11451, RPR, CCRR

JOSEPH D. SATTERLEY, ESQ.

jsatterley@kazanlaw.com

October 26, 2023

RE: EAGLES vs. ARVINMERITOR, INC.

October 23, 2023, WILLIAM LONGO, PH.D., VOL 2, JOB NO. 6167398

The above-referenced transcript has been

completed by Veritext Legal Solutions and

review of the transcript is being handled as follows:

___ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext to schedule a time to review the original transcript at a Veritext office.

x Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

___ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

___ Signature Waived - Reading & Signature was waived at the time of the deposition.

Page 279

1 ___ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF
2 Transcript - The witness should review the transcript and
3 make any necessary corrections on the errata pages included
4 below, notating the page and line number of the corrections.
5 The witness should then sign and date the errata and penalty
6 of perjury pages and return the completed pages to all
7 appearing counsel within the period of time determined at
8 the deposition or provided by the Federal Rules.
9 ___ Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

1 EAGLES vs. ARVINMERITOR, INC.

2 WILLIAM LONGO, PH.D., VOL 2 (#6167398)

3 E R R A T A S H E E T

4 PAGE_____ LINE_____ CHANGE_____

5 _____

6 REASON_____

7 PAGE_____ LINE_____ CHANGE_____

8 _____

9 REASON_____

10 PAGE_____ LINE_____ CHANGE_____

11 _____

12 REASON_____

13 PAGE_____ LINE_____ CHANGE_____

14 _____

15 REASON_____

16 PAGE_____ LINE_____ CHANGE_____

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California Code of Civil Procedure

Article 5. Transcript or Recording

Section 2025.520

(a) If the deposition testimony is stenographically recorded, the deposition officer shall send written notice to the deponent and to all parties attending the deposition when the Original transcript of the testimony for each session of the deposition is available for reading, correcting, and signing, unless the deponent and the attending parties agree on the record that the reading, correcting, and signing of the transcript of the testimony will be waived or that the reading, correcting, and signing of a transcript of the testimony will take place after the entire deposition has been concluded or at some other specific time.

(b) For 30 days following each notice under subdivision (a), unless the attending parties and the deponent agree on the record or otherwise in writing to a longer or shorter time period, the deponent may change the form or the substance of the answer to a question, and may either approve the transcript of the deposition by signing it, or

refuse to approve the transcript by not signing it.

(c) Alternatively, within this same period, the deponent may change the form or the substance of the answer to any question and may approve or refuse to approve the transcript by means of a letter to the deposition officer signed by the deponent which is mailed by certified or registered mail with return receipt requested. A copy of that letter shall be sent by first-class mail to all parties attending the deposition.

(d) For good cause shown, the court may shorten the 30-day period for making changes, approving, or refusing to approve the transcript.

(e) The deposition officer shall indicate on the original of the transcript, if the deponent has not already done so at the office of the deposition officer, any action taken by the deponent and indicate on the original of the transcript, the deponent's approval of, or failure or refusal to approve, the transcript. The deposition officer shall also notify in writing the parties attending the deposition of any changes which the deponent timely made in person.

(f) If the deponent fails or refuses to approve the transcript within the allotted period, the

deposition shall be given the same effect as though it had been approved, subject to any changes timely made by the deponent.

(g) Notwithstanding subdivision (f), on a seasonable motion to suppress the deposition, accompanied by a meet and confer declaration under Section 2016.040, the court may determine that the reasons given for the failure or refusal to approve the transcript require rejection of the deposition in whole or in part.

(h) The court shall impose a monetary sanction under Chapter 7 (commencing with Section 2023.010) against any party, person, or attorney who unsuccessfully makes or opposes a motion to suppress a deposition under this section, unless the court finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust.

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VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the deposition officer. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the deposition officer and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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1 SUPERIOR COURT OF CALIFORNIA

2 COUNTY OF ALAMEDA

3
4 MARLIN LEWIS EAGLES and
GEORGIA EAGLES,

Case No. 22CV018294

5
6 Plaintiffs,

7
8 vs.

9
10 ARVINMERITOR, INC., et al.,

11
12 Defendants.

13 VIDEOTAPED VIDEOCONFERENCE DEPOSITION OF

14 WILLIAM LONGO, PH.D.

15 Suwanee, Georgia

16 Monday, October 23, 2023

17 Volume 2

18
19
20
21 Reported by:

LESLIE JOHNSON

22 RPR, CCRR, CSR No. 11451

23 Job No.: 6167398

24 PAGES 166 - 281

25
Page 166

<p>1 SUPERIOR COURT OF CALIFORNIA 2 COUNTY OF ALAMEDA 3 4 MARLIN LEWIS EAGLES and Case No. 22CV018294 GEORGIA EAGLES, 5 6 Plaintiffs, 7 8 vs. 9 10 ARVINMERITOR, INC., et al., 11 12 Defendants. 13 14 15 16 17 VIDEOTAPED VIDEOCONFERENCE DEPOSITION OF 18 WILLIAM LONGO, PH.D., Volume 2, taken on behalf of 19 Defendants, at Suwanee, Georgia, beginning at 10:36 a.m. 20 and ending at 1:29 p.m. (EDT) on Monday, October 23, 21 2023, before LESLIE JOHNSON, Certified Shorthand Reporter 22 No. 11451. 23 24 25</p> <p>Page 167</p>	<p>1 APPEARANCES (Cont.): 2 3 For Defendants Johnson & Johnson and LTL: 4 BUTLER SNOW 5 BY: KIM BUENO, ESQ. 6 CHRISTOPHER R. COWAN, ESQ. 7 1400 Lavaca Street, Suite 1000 8 Austin, Texas 78701 9 (737)802-1820 10 kim.bueno@butlersnow.com 11 chris.cowan@butlersnow.com 12 For Defendants Johnson & Johnson and LTL: 13 KING & SPALDING LLP 14 BY: MORTON DUBIN II, ESQ. 15 JACOB KEESTER, ESQ. 16 SHAIRA RAHMAN DIMAN, ESQ. 17 1185 Avenue of the Americas, 34th Floor 18 New York, New York 10036 19 (212)556-2100 20 mdubin@kslaw.com 21 jkeester@kslaw.com 22 sdiwan@kslaw.com 23 24 25</p> <p>Page 169</p>
<p>1 APPEARANCES: 2 3 For Plaintiffs: 4 KAZAN, McCLAIN, SATTERLEY & GREENWOOD 5 BY: JOSEPH D. SATTERLEY, ESQ. 6 Jack London Market 7 55 Harrison Street, Suite 400 8 Oakland, California 94607 9 (510)302-1000 10 jsatterley@kazanlaw.com 11 For Defendant Lucky Stores; Save Mart, LLC; Safeway, Inc.; and Longs Drugstores California, LLC on behalf of Longs 12 Drugstores California, Inc.: 13 BARNES & THORNBURG LLP 14 BY: KEVIN RISING, ESQ. 15 2029 Century Park East, Suite 300 16 Los Angeles, California 90067 17 (310)284-3880 18 kevin.rising@btlaw.com 19 20 21 22 23 24 25</p> <p>Page 168</p>	<p>1 APPEARANCES (Cont.): 2 3 For Defendant Perrigo Company of Tennessee f/k/a Cumberland-Swan and CMC, Inc.: 4 5 POLSINELLI LLP 6 7 BY: MATTHEW S. O'BRIEN, ESQ. 8 9 2049 Century Park East, Suite 2900 10 11 Los Angeles, California 90067 12 13 (310)556-1801 14 15 mobrien@polsinelli.com 16 17 - and - 18 19 GOODELL, DEVRIES, LEECH & DANN, LLP 20 21 BY: JEFFREY J. HINES, ESQ. 22 23 One South Street, 20th Floor 24 25 Baltimore, Maryland 21202 (410)783-4041 jjh@gdldlaw.com Also Present: KIMBERLEE DECKER, Videographer</p> <p>Page 170</p>

1	I N D E X			1	Suwanee, Georgia	
2				2	Monday, October 23, 2023; 10:36 (EDT)	
3	WITNESS	EXAMINATION		3		
4	WILLIAM LONGO, Ph.D.			4	THE VIDEOGRAPHER: Good morning. We are	
	Volume 2			5	on the record at 10:36 a.m. on October 23rd of 2023. 10:36:06	
6	BY MR. DUBIN	176		6	All participants are attending remotely.	
7				7	Audio and video recording will continue to take	
8	EXHIBITS			8	place unless all parties agree to go off the record.	
9	WILLIAM LONGO, PH.D.			9	This is Media Unit 1, Volume 2 of the	
10	NUMBER	DESCRIPTION	PAGE	10	video-recorded deposition of William Longo, Ph.D. 10:36:27	
11	Exhibit 19	Letter dated October 16, 2023	175	11	taken by counsel for the plaintiff in the matter of	
12	Exhibit 20	Handwritten notes	205	12	Marlin Lewis Eagles and Georgia Eagles versus	
	(Placeholder)			13	Arvinmeritor, Inc., et al., filed in the Superior	
13	Exhibit 22	(Placeholder for any report of	215	14	Court for the State of California, County of	
14	Johnson & Johnson that			15	Alameda, Case No. 22CV018294. 10:36:46	
	shows a finding of richterite)			16	My name is Kimberlee Decker from Veritext	
15	Exhibit 23	Declaration of William E. Longo, Ph.D. 229		17	Legal Solutions, and I am the videographer. The	
16	in Opposition to Defendant Safeway			18	court reporter is Leslie Johnson. I'm not related	
17	Inc.'s Motion for Summary Judgment			19	to any party in this action nor am I financially	
	or, in the Alternative, Summary			20	interested in the outcome. 10:37:04	
	Adjudication			21	Counsel and all present will now state	
18	Exhibit 24	ISO 22262-1	244	22	their appearances and affiliations for the record.	
19	Exhibit 25	IARC Monographs on the Evaluation of	245	23	If there are any objections to the	
20	Carcinogenic Risks to Humans			24	proceeding, please state them at the time of your	
21	Exhibit 26	Letter dated July 13, 2018	250	25	appearance, beginning with the noticing attorney. 10:37:14	
22	Exhibit 27	Analysis Report	251		Page 173	
	MAS Project # M71109-M71111					
23	Chinese Talc Research Samples					
24	Exhibit 28	Declaration of William Longo, Ph.D. 258				
	in Foushee v. RT Vanderbilt					
25						
	Page 171					
1	EXHIBITS (Cont.)			1	And one more thing. This is being taken 10:37:17	
2	WILLIAM LONGO, PH.D.			2	by counsel for the defendants.	
3	NUMBER	DESCRIPTION	PAGE	3	Please state your names.	
4	Exhibit 29	"White Balancing" slide	260	4	MR. DUBIN: Hi. This is Morton Dubin for	
5	Exhibit 30	Letter dated February 28, 2023	263	5	the Johnson & Johnson related defendants. 10:37:27	
6	Exhibit 31	Letter dated January 20, 2011	266	6	MS. BUENO: Kim Bueno on behalf of the	
7	Exhibit 32	Slide deck	268	7	Johnson & Johnson related defendants.	
8	Exhibit 33	Chart/Graphic	271	8	MS. DIMAN: Shaila Diman for the Johnson &	
	(Not provided to court reporter)			9	Johnson related defendants.	
9	Exhibit 34	Appendix B: Dr. Shu-Chun Su's review	271	10	MR. RISING: Kevin Rising for Longs, Lucky, 10:37:35	
10	of Dr. Longo's PLM methods for the			11	and Safeway.	
11	identification of chrysotile			12	MR. O'BRIEN: Matthew O'Brien on behalf of	
12				13	Defendant Perrigo Company of Tennessee.	
13				14	MR. COWAN: Chris Cowan for Butler Snow on	
14				15	behalf of the Johnson & Johnson defendants. 10:37:50	
15				16	MR. SATTERLEY: There's a Jake Keester.	
16				17	Who is that?	
17				18	MR. DUBIN: He's my associate. Just	
18				19	pulling things up for me.	
19				20	MR. SATTERLEY: Okay. Joe Satterley for 10:37:53	
20				21	the plaintiffs.	
21				22	THE VIDEOGRAPHER: Thank you. Will the	
22				23	court reporter please swear in the witness.	
23				24	////	
24				25	////	
25						
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1	WILLIAM LONGO, PH.D.,	10:38:00	1	trade name. So that's where I'm at.	10:40:41
2	having been re-administered an oath, was examined		2	Q And what, to you, is the deciding factor	
3	and testified as follows:		3	on whether something should be called cummingtonite	
4			4	or grunerite?	
5	MR. DUBIN: All right. So we'll start by	10:38:19	5	A The ratio of iron to magnesium, I believe	10:40:54
6	marking as Exhibit 19, which is I think where we		6	it is, or silicon, since that's the -- essentially	
7	left off, the notice for day two of the deposition.		7	the solid solution series there.	
8	We don't need to call that up.		8	Q So at what point does the ratio of iron to	
9	(Exhibit 19 marked for identification.)		9	magnesium tip such that you would call a mineral	
10	MR. DUBIN: So, as I understand it,	10:38:34	10	grunerite, as opposed to cummingtonite?	10:41:13
11	there's been some back and forth with the scope and		11	A I don't know right as I sit here now. I'd	
12	extent of materials that are being requested from		12	have to look at it to make sure I was precise.	
13	Dr. Sanchez about including his prior talc and		13	Q Okay. Well, if something is over	
14	litigation work and billing and billing backup. And		14	50 percent iron versus magnesium, is it then	
15	just for the record, I want to be clear, anything	10:38:51	15	grunerite?	10:41:29
16	that has been requested of Dr. Sanchez we are also		16	A Again, to be precise, I'd like to look at	
17	requesting of Dr. Longo.		17	the chemistry --	
18	So we can follow up with that later, but I		18	Q Okay.	
19	just want to make sure it's clear on the record that		19	A -- Howie and Zussman or maybe look at Ann	
20	we're requesting a scope that is equivalent in scale	10:39:03	20	Wylie's definition on where the changeover is on the	10:41:41
21	to what Plaintiffs requested from Dr. Sanchez.		21	ratio.	
22	All right. So let's get started.		22	Q Okay. So, when you say "possibly	
23	////		23	grunerite," can you tell me anything about the	
24	////		24	chemistry of the fiber that Dr. Dodson identified	
25	////		25	that leads you to say it is only possibly grunerite?	10:41:56
Page 175			Page 177		
1	EXAMINATION (RESUMED)	10:39:15	1	A Well, let me -- just a second so I can get	10:42:00
2	BY MR. DUBIN:		2	to it.	
3	Q Dr. Longo, is there anything from your		3	Well, the iron peak is maybe 60 percent of	
4	first day of your deposition that you wish to amend		4	the silicon peak. And so I would like to be able to	
5	or correct at this point?	10:39:22	5	look at that -- look at the actual formulations and	10:43:00
6	A No.		6	the ranges. That's all.	
7	Q Okay. And so first topic I want to go		7	Q How about compared to the magnesium peak?	
8	back to very briefly is the -- to make sure I		8	A The magnesium peak is lower, which would	
9	understand, we talked a little bit about the		9	be expected because when the -- that's the	
10	father's work in the shipyard. And just to be	10:39:42	10	substitution -- that's what's substituted as the	10:43:22
11	clear, amosite was one of the types of insulation		11	iron. But it would be the iron ratio to silicon	
12	materials that -- sorry, one of the types of		12	ratio would be the -- the formula for it.	
13	asbestos that was used in insulation materials		13	And you'd have to look at the -- you know,	
14	historically in U.S. shipyards, correct?		14	the manganese peak. I don't remember if that is a	
15	A That is correct.	10:40:00	15	marker for grunerite-cummingtonite or just	10:43:50
16	Q Okay. And Dr. Dodson reported amosite in		16	grunerite. I can't remember that part.	
17	Mr. Eagles' tissue, correct?		17	So I'd have to check that.	
18	A That's what he called it.		18	Q So is it your testimony that the	
19	Q And I think you described it in your first		19	distinction between cummingtonite and grunerite is	
20	day of deposition as possibly grunerite.	10:40:17	20	based on the ratio of iron and silica or iron and	10:44:06
21	Is that where you are in what that		21	magnesium?	
22	particle is?		22	A It's -- as I recall -- well, the magnesium	
23	A Possibly cummingtonite-grunerite or		23	is lowered because of the iron. That would be part	
24	grunerite, which would be the appropriate geological		24	of it, if you looked at the formula. But I think	
25	mineralogical name for amosite, since amosite is a	10:40:35	25	what Ann Wylie, at least in -- at least what was	10:44:24
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<p>1 stated to Dr. Sanchez in his deposition was that it 10:44:28</p> <p>2 was a ratio of the silicon to iron.</p> <p>3 Q Okay. So it's silica to iron that you</p> <p>4 believe is the distinguishing factor, not silica --</p> <p>5 not iron to magnesium? 10:44:43</p> <p>6 A Again, it's not what I am establishing, as</p> <p>7 I've told you two or three times now. I would like</p> <p>8 to revisit that.</p> <p>9 I believe that it may be some order of the</p> <p>10 magnesium to iron, the silicon to iron. It would be 10:44:59</p> <p>11 more of a -- I'd have to look at the actual formula.</p> <p>12 But it should never be called amosite, in my</p> <p>13 opinion.</p> <p>14 Q So you haven't in tissue burden studies</p> <p>15 referred to individuals as having amosite in their 10:45:20</p> <p>16 tissue?</p> <p>17 A We have in the past. But that was -- that</p> <p>18 was a mistake. And we should call it its mineral</p> <p>19 name. I would never do that now.</p> <p>20 Q Do you have any idea approximately how 10:45:35</p> <p>21 many times you have made in the past the mistake of</p> <p>22 calling a fiber in a tissue burden analysis amosite?</p> <p>23 A Let's see. Over the 20, 30 some years, I</p> <p>24 don't know.</p> <p>25 Q Hundreds? 10:45:55</p> <p style="text-align: right;">Page 179</p>	<p>1 BY MR. DUBIN: 10:47:01</p> <p>2 Q Okay. So you agree that when you're</p> <p>3 describing a mineral, it's important to use its</p> <p>4 correct mineral name, right?</p> <p>5 A I believe it's important, yes. 10:47:08</p> <p>6 Q Okay. So you've said before that at least</p> <p>7 some of what you've called anthophyllite in your</p> <p>8 testing of Johnson & Johnson may in fact be</p> <p>9 cummingtonite, correct?</p> <p>10 A Correct. 10:47:25</p> <p>11 Q So why didn't you use the correct mineral</p> <p>12 name then?</p> <p>13 MR. SATTERLEY: Objection. Argumentative.</p> <p>14 THE WITNESS: I believe a lot of times we</p> <p>15 said it could be -- you know, we were calling it all 10:47:35</p> <p>16 anthophyllite. The difference, of course, is the</p> <p>17 iron and transformation from the orthorhombic to</p> <p>18 monoclinic. And in order to tell the difference</p> <p>19 there would require -- would require additional</p> <p>20 analysis. So, at that time, we just don't do it. 10:47:58</p> <p>21 BY MR. DUBIN:</p> <p>22 Q What initial analysis would it have</p> <p>23 required, and how long do you believe it would have</p> <p>24 taken to do for any individual particle?</p> <p>25 MR. SATTERLEY: Objection. Calls for 10:48:12</p> <p style="text-align: right;">Page 181</p>
<p>1 MR. SATTERLEY: Objection. Calls for 10:45:58</p> <p>2 speculation. Asked and answered.</p> <p>3 THE WITNESS: Is it bigger than a bread</p> <p>4 box? I don't know.</p> <p>5 BY MR. DUBIN: 10:46:03</p> <p>6 Q Okay. And how about if you're doing</p> <p>7 product testing and you find a mineral that's</p> <p>8 grunerite in a product, do you think you should call</p> <p>9 it amosite or grunerite?</p> <p>10 MR. SATTERLEY: Objection. Overly broad. 10:46:16</p> <p>11 Vague.</p> <p>12 THE WITNESS: Well, that's different if</p> <p>13 you're doing -- and you know what the product is and</p> <p>14 you know what's in it and where it came from. That</p> <p>15 I don't have that much of a problem. 10:46:26</p> <p>16 But if we were -- it's been a while since</p> <p>17 we've tested an amosite product, but now just to</p> <p>18 keep it consistent, just call it its actual mineral</p> <p>19 name.</p> <p>20 But if you know what the product is, such 10:46:42</p> <p>21 as Marinite, and you know that JM only used amosite</p> <p>22 in Marinite, it's pretty easy to call it Marinite.</p> <p>23 But when you're doing lung tissue analysis</p> <p>24 burdens, I think you should call it the regular</p> <p>25 mineral name. 10:47:00</p> <p style="text-align: right;">Page 180</p>	<p>1 speculation. 10:48:12</p> <p>2 THE WITNESS: I don't know because we</p> <p>3 haven't done it yet, so I would just be speculating.</p> <p>4 BY MR. DUBIN:</p> <p>5 Q So you would be speculating on how you 10:48:18</p> <p>6 would tell the difference between anthophyllite and</p> <p>7 cummingtonite?</p> <p>8 A You didn't ask me that. You asked me how</p> <p>9 long would it take me.</p> <p>10 Q Okay. Let me just ask you. 10:48:29</p> <p>11 How would you tell the difference between</p> <p>12 anthophyllite and cummingtonite if you were going to</p> <p>13 take that step?</p> <p>14 A I would do quantitative chemistry at the</p> <p>15 amount of iron. 10:48:45</p> <p>16 Q Anything else?</p> <p>17 A Don't know. I think that should be</p> <p>18 plenty.</p> <p>19 Q Okay. And so, an EDS spectra is not</p> <p>20 enough for you to make those kind of chemical 10:48:57</p> <p>21 judgments?</p> <p>22 A It might be if I looked at enough</p> <p>23 cummingtonite -- just cummingtonite standards. But</p> <p>24 I don't know. I'd have to look at the cummingtonite</p> <p>25 standards and see how readily you can do that -- 10:49:12</p> <p style="text-align: right;">Page 182</p>

1 Q Have you -- 10:49:15	1 testimony, or individuals that were coworkers that 10:52:15
2 A -- versus the grun --	2 he indeed was exposed to asbestos-containing
3 cummingtonite-grunerite.	3 insulation in the time period where one of the
4 As I recall, cummingtonite-grunerite is	4 components, more likely than not, was
5 regulated asbestos. So it really didn't matter that 10:49:24	5 amosite/cummingtonite-grunerite. 10:52:32
6 much at the time.	6 Does that make more sense?
7 But I see your point.	7 BY MR. DUBIN:
8 Q Okay. And would a finding of amosite in	8 Q Well, I understood what you're saying.
9 tissue be consistent with a take-home exposure of	9 I'm not going to say it makes sense.
10 amosite from amosite-containing insulation 10:49:47	10 Well, you have not found grunerite in any 10:52:45
11 materials?	11 Johnson & Johnson product, correct?
12 MR. SATTERLEY: Objection. Calls for	12 A That's correct.
13 speculation.	13 Q And we have a history here of an
14 THE WITNESS: The finding of an	14 individual whose father worked in shipyards during
15 anthophyllite/grunerite. Again, amosite is a trade 10:49:55	15 the time period when amosite was in insulation 10:53:02
16 name. And there is cummingtonite-grunerite as NOAs,	16 materials, correct?
17 in my opinion. I'm not sure finding one, if it	17 MR. SATTERLEY: Objection. Calls for
18 really is grunerite slash, is anything but a	18 speculation. Assumes facts not in evidence.
19 natural-occurring asbestos. Seems like what there	19 What history are you talking about,
20 mostly is there in lung tissue is talc, tremolite, 10:50:22	20 Mr. Dubin? 10:53:12
21 et cetera, aluminum silicates.	21 MR. DUBIN: I'm talking about the facts --
22 BY MR. DUBIN:	22 MR. SATTERLEY: No facts. Nobody's
23 Q So my question was, is finding amosite in	23 testified to --
24 lung tissue consistent with take-home exposure from	24 MR. DUBIN: I'm talking about the fact
25 asbestos-containing insulation materials? 10:50:40	25 that, as Dr. Longo has acknowledged, the father 10:53:21
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1 MR. SATTERLEY: Objection. Asked and 10:50:43	1 worked at a shipyard, right? 10:53:25
2 answered. Speculation.	2 MR. SATTERLEY: Nobody has testified to
3 BY MR. DUBIN:	3 that fact, Mr. Dubin.
4 Q You can't answer that, Dr. Longo?	4 Where are you getting that at?
5 A The finding of anthoph -- excuse me, 10:50:50	5 MR. DUBIN: Okay. Maybe we'll go back on 10:53:33
6 cummingtonite-grunerite in lung tissue for an	6 this later.
7 individual who does not have any -- sorry, does not	7 BY MR. DUBIN:
8 have any talcum powder exposure, especially from the	8 Q Let's assume somebody has.
9 Vermont mines, and has a -- but has where we can say	9 You don't think there is evidence in this
10 within a reasonable degree of scientific certainty 10:51:23	10 case, Dr. Longo, that the plaintiff's father worked 10:53:44
11 that has been exposed to products that contain	11 at a shipyard; is that what you're saying?
12 cummingtonite-grunerite, yes.	12 MR. SATTERLEY: Objection. Calls for
13 Q I have no idea what you just said.	13 speculation. Assumes facts not in evidence.
14 MR. SATTERLEY: He may have misspoke.	14 THE WITNESS: We have his -- we have
15 Dr. Longo, you may have misspoke. You 10:51:36	15 Mr. Eagles, who testified that he thought his father 10:54:04
16 said something about no exposure to talc?	16 worked in shipyards and that he was a marine
17 MR. DUBIN: Let's just --	17 electrician.
18 (Crosstalk.)	18 What we don't have is any facts if in fact
19 THE WITNESS: You said is it consistent.	19 he did work in a shipyard and did work on a ship
20 But that's sort of a vague question. 10:51:50	20 versus something else. There is no evidence there 10:54:18
21 What about -- I'm trying to answer is,	21 to do that. So that's why I have the opinion that I
22 yes, you would be right if we had a history of the	22 can't state that he had any exposure at a shipyard
23 particular exposed individual where there is no	23 one way -- or did have exposure one way or the
24 talcum powder exposure and that we know for a fact	24 other.
25 from either his own testimony, the plaintiff's own 10:52:11	25 ////
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<p>1 BY MR. DUBIN: 10:54:34</p> <p>2 Q Okay. One of the things fiber burden</p> <p>3 analyses are sometimes used for is to confirm what</p> <p>4 exposures to asbestos an individual may have had in</p> <p>5 the past, right? 10:54:46</p> <p>6 A Correct.</p> <p>7 Q In other words, somebody who you don't</p> <p>8 know did they or did they not have exposure to</p> <p>9 amosite in the past, then you find it in their</p> <p>10 tissue, that helps you say, yes, they did in fact 10:54:59</p> <p>11 have that exposure, right? That's part of the</p> <p>12 purpose of a fiber burden analysis.</p> <p>13 A I'm sorry. Could . . .</p> <p>14 Q Sure. Let's say you had a question</p> <p>15 whether this individual -- whether Plaintiff here 10:55:14</p> <p>16 was exposed in the past from an amosite-containing</p> <p>17 asbestos insulation materials. Isn't it a clue that</p> <p>18 he was if you find amosite in his tissue?</p> <p>19 A Again, I guess I'll repeat it.</p> <p>20 Amosite is a trade name for South African 10:55:38</p> <p>21 grunerite -- cummingtonite-grunerite.</p> <p>22 If you find one potential</p> <p>23 cummingtonite-grunerite and you find platy talc,</p> <p>24 fibrous talc, tremolite, which is not an accessory</p> <p>25 mineral that I recall from amosite, some 10:56:08</p> <p style="text-align: right;">Page 187</p>	<p>1 there was crocidolite in there, I've never seen that 10:57:46</p> <p>2 found in any natural occurring -- any</p> <p>3 natural-occurring asbestos, except for some deposits</p> <p>4 of dolomitic lime up in the New York, New Jersey</p> <p>5 area. 10:58:07</p> <p>6 Q First, let me just ask you, how much time</p> <p>7 do we have today, Dr. Longo, so I can spend our time</p> <p>8 wisely?</p> <p>9 A Let's see. 10:30. I'm going to need some</p> <p>10 lunch at some point. I would say four hours. 10:58:23</p> <p>11 MR. SATTERLEY: Dr. Longo, you told me</p> <p>12 three hours the other day. I have to be in court at</p> <p>13 11:00.</p> <p>14 THE WITNESS: Sorry. 3 hours? Sorry,</p> <p>15 Mr. Satterley. 10:58:34</p> <p>16 MR. DUBIN: So we're going until about</p> <p>17 what time, Joe?</p> <p>18 MR. SATTERLEY: 10:30 my time. I've got</p> <p>19 to be in court at 11:00.</p> <p>20 MR. DUBIN: Oh, my god. 10:30 your time. 10:58:42</p> <p>21 That's what, 1:30 my time?</p> <p>22 MR. SATTERLEY: Yep.</p> <p>23 MR. DUBIN: Okay. All right.</p> <p>24 Well, maybe we'll come back to this, but I</p> <p>25 want to move on for a little bit. 10:58:52</p> <p style="text-align: right;">Page 189</p>
<p>1 anthophyllite, some aluminum silicates, that 10:56:10</p> <p>2 exposure points to the use of talcum powder, in my</p> <p>3 opinion.</p> <p>4 If you have information that somebody is</p> <p>5 an insulator, worked around an insulator, handled 10:56:22</p> <p>6 manufacturing -- in an area where they were</p> <p>7 manufacturing products using amosite-containing --</p> <p>8 amosite/cummingtonite-grunerite or what they're</p> <p>9 calling amosite from the documents, yes, that</p> <p>10 verifies it, but not necessarily has to be in the 10:56:43</p> <p>11 lung burden analysis when you have the testimony.</p> <p>12 Q Is there any type of asbestos, any mineral</p> <p>13 type of asbestos that if it's found in plaintiff's</p> <p>14 tissue you will not say, "Well, that's consistent</p> <p>15 with talc"? 10:57:03</p> <p>16 MR. SATTERLEY: Objection. Calls for</p> <p>17 speculation.</p> <p>18 THE WITNESS: Any asbestos mineral?</p> <p>19 BY MR. DUBIN:</p> <p>20 Q Any asbestos mineral. 10:57:22</p> <p>21 A Any asbestos mineral, I would not say it</p> <p>22 for crocidolite. I've never seen anything like</p> <p>23 that. Certainly chrysotile. Certainly tremolite.</p> <p>24 Certainly anthophyllite. Certainly cummingtonite --</p> <p>25 cummingtonite-grunerite. But if there was a -- if 10:57:39</p> <p style="text-align: right;">Page 188</p>	<p>1 BY MR. DUBIN: 10:58:55</p> <p>2 Q I want to talk about home remodeling next</p> <p>3 briefly. You have some notes in your -- the notes</p> <p>4 you prepared about home remodeling.</p> <p>5 You said, first of all, the house -- so 10:59:11</p> <p>6 you discussed some construction in one of</p> <p>7 Mr. Eagles' houses, correct?</p> <p>8 A Correct.</p> <p>9 Q Okay. Is that the house you visited?</p> <p>10 A Yes. The house was built in -- I think it 10:59:30</p> <p>11 was 1926.</p> <p>12 Q Okay. So it's an old house.</p> <p>13 Would you agree that there were likely</p> <p>14 asbestos-containing materials used in the</p> <p>15 construction of that home? 10:59:42</p> <p>16 A No. I don't agree.</p> <p>17 Q So not floor tile, not ceiling tile, not</p> <p>18 wall material, not anything that you think would be</p> <p>19 likely in a house built in the 1920s to contain</p> <p>20 asbestos in that home? 11:00:01</p> <p>21 A That's correct. I'm not aware of any</p> <p>22 asbestos products being in any home constructed in</p> <p>23 1926.</p> <p>24 What was in the home on the walls, on the</p> <p>25 ceiling was a plaster material, which is not 11:00:13</p> <p style="text-align: right;">Page 190</p>

<p>1 unusual. And there was also some interesting 11:00:19</p> <p>2 looking, I would almost call it plywood. But it's</p> <p>3 really not because it had a lot of surface features</p> <p>4 on it. But it was definitely wood -- wood paneling</p> <p>5 of some sort that was painted over. 11:00:34</p> <p>6 I asked about what was the tiles taken out</p> <p>7 of the bathrooms, as well as in the kitchen, and</p> <p>8 they said ceramic tiles.</p> <p>9 I clarified with him -- I think I</p> <p>10 testified about this last time that he said when 11:00:48</p> <p>11 they took the wall down that there was wallboard</p> <p>12 there. I asked him again about that, and he said,</p> <p>13 no, it was plaster, not wallboard or joint -- or</p> <p>14 your typical gypsum drywall board.</p> <p>15 So I didn't see any exposure from the 11:01:09</p> <p>16 remodeling of that house.</p> <p>17 Q Okay. Let me make sure I understand.</p> <p>18 First, who brought up the construction in</p> <p>19 the interview?</p> <p>20 A I did. 11:01:19</p> <p>21 Q Okay. Now, you mentioned last time</p> <p>22 discussing plaster versus drywall. Now you're</p> <p>23 saying you also asked him about floor files?</p> <p>24 A Well, they pulled the floor tiles. In the</p> <p>25 bathroom, that was replaced, what was taken out or 11:01:35</p> <p style="text-align: right;">Page 191</p>	<p>1 the house have an attic? 11:03:02</p> <p>2 A It does.</p> <p>3 Q Was there ever any insulation in the</p> <p>4 attic?</p> <p>5 A According to Mr. Eagle, they put -- there 11:03:10</p> <p>6 was insulation up there.</p> <p>7 Q Do you know what type of insulation?</p> <p>8 A He said that it was -- looked like a paper</p> <p>9 material.</p> <p>10 Q Do you have any understanding of what that 11:03:26</p> <p>11 kind of insulation would be if it looked like a,</p> <p>12 quote, "paper material"?</p> <p>13 A It's essentially blown-in cellose, which</p> <p>14 is typical.</p> <p>15 Q You said that -- so there's no -- there 11:03:45</p> <p>16 was no drywalling anywhere in the home. Is that</p> <p>17 what you're saying?</p> <p>18 A As far as I could tell, yes.</p> <p>19 Q Okay. Can plasters have asbestos in them?</p> <p>20 A Yes. 11:04:06</p> <p>21 Q Okay. What type or types of wall plasters</p> <p>22 can have asbestos in them?</p> <p>23 A The stuff that was developed '70s.</p> <p>24 Usually they put 1 or 2 percent in so they can spray</p> <p>25 it, motorized spray it. But that's not what 11:04:26</p> <p style="text-align: right;">Page 193</p>
<p>1 covered over. And he said it was ceramic, not vinyl 11:01:41</p> <p>2 asbestos tile, which makes sense because vinyl</p> <p>3 asbestos tiles weren't made in the twenties.</p> <p>4 Q Okay. So what else, if anything, did you</p> <p>5 do while you were in the home to assess whether 11:01:57</p> <p>6 there were asbestos-containing materials that either</p> <p>7 were there then or had been prior to any renovation</p> <p>8 when he lived there?</p> <p>9 A That's what I did. I asked him about the</p> <p>10 house. I asked him about, you know, where the 11:02:09</p> <p>11 potential would have been, such as taking out tiles</p> <p>12 or covering over tiles. There was just nothing</p> <p>13 there, Mr. Dubin.</p> <p>14 Q You asked him -- you asked them that about</p> <p>15 tiles too is what you're saying? 11:02:29</p> <p>16 A Yes, sir. Just wanted to make sure that</p> <p>17 wasn't -- because, again, I'm not aware of any</p> <p>18 asbestos products being used in construction of</p> <p>19 homes in the 1920s.</p> <p>20 Q Maybe we'll talk about that later. I just 11:02:49</p> <p>21 want to make sure we've got everything.</p> <p>22 Did you test any materials or take any</p> <p>23 materials to test from the home?</p> <p>24 A No, sir.</p> <p>25 Q Was there ever any insulation in -- does 11:02:59</p> <p style="text-align: right;">Page 192</p>	<p>1 happened back in the '20s or '30s or '40s. I don't 11:04:30</p> <p>2 think that material started being used, especially</p> <p>3 on the West Coast, until the 1950s or '60s. That's</p> <p>4 not what's on there. That was all hand put on.</p> <p>5 Q Okay. So when do you think that there 11:04:45</p> <p>6 started to be asbestos in wall plasters?</p> <p>7 A When they started guniting it to make</p> <p>8 it -- give it what they call slip through the hose</p> <p>9 to spray it.</p> <p>10 Q Okay. Were there -- was there asbestos 11:05:00</p> <p>11 used in other wall plasters that were not sprayed?</p> <p>12 A Not during that time frame that I'm aware</p> <p>13 of.</p> <p>14 Q Okay. How about -- how about any products</p> <p>15 in the house that you believe may have contained 11:05:20</p> <p>16 industrial talc?</p> <p>17 A I can't think of anything there that</p> <p>18 contained industrial talc.</p> <p>19 Q I may come back to this. I'm going to</p> <p>20 move on for now. 11:05:43</p> <p>21 Let's talk about the W.R. Grace facility.</p> <p>22 In your initial set of notes, you didn't</p> <p>23 mention the W.R. Grace facility, correct?</p> <p>24 A Correct.</p> <p>25 Q When did you first become aware that there 11:05:58</p> <p style="text-align: right;">Page 194</p>

1 was a W.R. Grace facility -- you know, use 11:06:01	1 A That's sort of fair. But, I mean, 11:08:47
2 whatever -- near the Peterbilt facility?	2 overall, I see there is no evidence that Mr. Eagles
3 A I don't quite recall when. I mean, I did	3 was exposed to a W.R. Grace product. And that's
4 review Nony's expert report. He has it in there.	4 where the tremolite -- quote, tremolite, richterite,
5 So I don't know if it was that, or I can't remember 11:06:36	5 winchite -- that's where it came from. 11:09:05
6 if it was Sanchez's report or I was told by	6 I think the evidence shows that neither I
7 Plaintiffs. One of the three.	7 nor Abraham found anything that resembled
8 Q Okay. But it's not something -- was it	8 vermiculite in Mr. Eagles' lung tissue.
9 something that you knew before you had found out	9 Q Okay. Do you know approximately how far
10 that it was -- had been raised by Defendant's 11:06:50	10 away the facilities are from one another? 11:09:42
11 experts?	11 A I think it's in Mr. Nony's report. You
12 A Again, I just gave you three	12 know, I'd have to look it up, how far away. I mean,
13 possibilities. I'm not sure when I was told.	13 I'm not disputing it's whatever distance it is. I
14 So, again, could have been Plaintiff.	14 just don't see any evidence that Mr. Eagles got
15 Could have been Plaintiff. Could have been one of 11:07:06	15 exposed. 11:10:10
16 defense experts.	16 Q Okay. Let's see what we agree -- do you
17 Q Okay. And you said you reviewed the Nony	17 agree that the -- maybe we can short-circuit.
18 report. How did you get it?	18 Do you agree that the Peterbilt facility
19 A It was sent to me by Mr. Satterley -- or	19 was within the zone of highest potential exposure to
20 not sent to me, but I think it was sent to -- this 11:07:20	20 hazardous levels of asbestos from the W.R. Grace 11:10:26
21 was all sent to my assistant, who gave it to me.	21 plant, according to the ATSDR?
22 Q Sent how?	22 MR. SATTERLEY: Objection. Calls for
23 A I imagine he sent it by email.	23 speculation.
24 MR. DUBIN: And again, we'd request --	24 THE WITNESS: No. I don't agree.
25 THE WITNESS: I don't know. I just know 11:07:34	25 ////
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1 that it showed up with the rest of the material here 11:07:36	1 BY MR. DUBIN: 11:10:41
2 at some point.	2 Q Okay. Have you -- did you look at that?
3 MR. DUBIN: Okay. And again, to the	3 Did you read the 2005 ATSDR report about the W.R.
4 extent it wasn't clear last time, we're requesting	4 Grace facility in Newark, California?
5 all communications, even internal, about this case 11:07:47	5 A No. 11:10:57
6 at MAS.	6 Q Okay. So, if that report contains a zone
7 BY MR. DUBIN:	7 that was identified as the area with highest
8 Q So you got the Nony report. It's dated	8 potential exposure for exposure to hazardous levels
9 October 4, 2023.	9 of asbestos from the W.R. Grace facility, you
10 Can you tell me how long after that date 11:08:07	10 haven't seen that? 11:11:14
11 you received it?	11 MR. SATTERLEY: Objection. Calls for
12 A No, I can't.	12 speculation. Asked and answered.
13 Q Okay. His report has a series of	13 BY MR. DUBIN:
14 references regarding W.R. Grace.	14 Q You haven't seen that; is that fair?
15 Did you see that? 11:08:23	15 MR. SATTERLEY: Objection. Asked and 11:11:23
16 A I saw that.	16 answered. He's already testified that he didn't
17 Q Did you read them?	17 review the report.
18 A The references?	18 Why are you harassing him?
19 Q Yes, the references.	19 MR. DUBIN: He might have reviewed part.
20 A I just read what he said about it. I 11:08:29	20 You might have told you, Tim. I'm asking him the 11:11:30
21 don't have any issue about the references.	21 question.
22 Q Okay. So you're not taking any issue with	22 MR. SATTERLEY: Well, he's -- objection.
23 any of the ways that Mr. Nony describes the	23 Asked and answered.
24 references in his report regarding W.R. Grace; is	24 MR. DUBIN: You'll know if I'm harassing
25 that fair? 11:08:46	25 him. So you can just -- can you answer the 11:11:38
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1 question? We're wasting time. 11:11:39	1 looked for it. 11:14:23
2 MR. SATTERLEY: No, no. I'm objecting, a	2 Q All right. Well, in your notes, you talk
3 legitimate objection that you've already asked him	3 about the idea of fibers floating into Mr. Eagles'
4 the question.	4 office. So let me ask you. Do you know whether his
5 MR. DUBIN: Are you instructing the 11:11:47	5 office had windows? 11:14:48
6 witness not to answer?	6 A I don't recall.
7 MR. SATTERLEY: No.	7 Q And you obviously -- for any question that
8 MR. DUBIN: Okay. Then stop it.	8 I ask you about the W.R. Grace facility or how it
9 THE WITNESS: As I just stated, I didn't	9 has potential for exposure there, you didn't discuss
10 read the report. 11:11:55	10 any of that in your interview with him, right? 11:15:10
11 BY MR. DUBIN:	11 A No, I did not.
12 Q Do you know how high fugitive emissions	12 Q Okay. Where does the air inside a
13 were from the W.R. Grace facility?	13 facility typically come from?
14 A I don't recall that they actually had air	14 A Typically, a facility will have an HVAC
15 samples. I don't recall any air samples that were 11:12:18	15 system or some type of air movement from -- it could 11:15:27
16 ever taken inside the Peterbilt facility and then	16 be fans, et cetera. Out there, I don't know how
17 more so inside his office in the Peterbilt facility.	17 often they would have, you know, heat. But
18 So there was no evidence that I could see	18 typically, an HVAC system of some sort.
19 that there was high fugitive emissions from the	19 Q Right. Is it fair to say that the air
20 plant that got in where Mr. Eagle worked. 11:12:41	20 inside a facility typically circulates with the air 11:15:47
21 Q Okay. Well, I'm asking you just about	21 outside the facility?
22 fugitive emissions from the W.R. Grace plant.	22 A In some cases, yes. In some cases,
23 Did you look at that?	23 they'll have essentially an enclosed system.
24 A I don't recall if I looked at it or not.	24 Q So, I mean, you're not saying the
25 If it was in Mr. Nony's report, I would have looked 11:12:55	25 Peterbilt facility was hermetically sealed, right? 11:16:05
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1 at it. But I don't recall. 11:12:58	1 A Well, of course not. There is always 11:16:10
2 Q Do you recall a study where individuals	2 going to be air intrusion inside the facility. But
3 looked at tree bark from --	3 again, there is no evidence -- no -- there is
4 A I did.	4 absolutely no evidence that Mr. Eagle had any
5 Q -- the area? 11:13:10	5 exposure -- any exposure to W.R. Grace's vermiculite 11:16:22
6 Sorry?	6 plant, exfoliation plant while he was at that
7 A I saw that.	7 facility. Excuse me. There is just no evidence
8 I said I saw that data where they found	8 there other than speculation.
9 tremolite in the tree bark.	9 Q And the fact that he has richterite and
10 Q Okay. And but you -- did you read the 11:13:19	10 winchite, or what you called possible richterite and 11:16:43
11 actual article?	11 possible winchite, in his tissue, right?
12 A No. I've seen that data before in other	12 A Well, that's the primary -- I would look
13 instances, like in Libby, Montana. I wasn't	13 at that as the primary evidence why he does not have
14 disputing that data.	14 any exposure to the W.R. Grace plant. And I would
15 Q Okay. Do you know when the W.R. Grace 11:13:37	15 be happy to explain if you'd like. 11:17:01
16 facility closed?	16 Q Let me make sure I understand.
17 A I saw that, but I can't recall exactly	17 The fact that -- so W.R. Grace facility
18 when that was.	18 was using vermiculite from Libby, right?
19 Q So do you know even approximately how many	19 A Correct.
20 years after the W.R. Grace facility closed these 11:13:54	20 Q Libby vermiculite can be contaminated with 11:17:16
21 investigators were still finding asbestos in tree	21 richterite and winchite, correct?
22 bark from the facility?	22 A Winchite, richterite, tremolite,
23 A Well, I don't know when the tremolite or	23 actinolite are all naturally-occurring asbestos
24 the asbestos got into the tree bark. It would be	24 accessory minerals for the vermiculite in Libby,
25 there for however long until somebody went and 11:14:19	25 Montana. 11:17:40
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1 Q And those minerals in Libby can be 11:17:45	1 handwritten notes if you want to get to it or not 11:20:40
2 asbestiform, correct?	2 today.
3 A They can.	3 Q Okay. Yes. We'll request those. We'll
4 Q And they have been associated with the	4 leave that open as Exhibit 20.
5 development of mesothelioma among miners and 11:17:54	5 (Exhibit 20 marked for identification.) 11:20:56
6 community members in Libby, right?	6 BY MR. DUBIN:
7 A Well, that's not an area I'd testify	7 Q All right. And to the extent you have any
8 about. So I'm not disputing that there is	8 notes still from the last time, we can include those
9 significant asbestiform, tremolite, actinolite,	9 in Exhibit 20.
10 winchite, richterite in the Libby, Montana 11:18:14	10 So, all right, Dr. Longo, tell me why the 11:21:02
11 vermiculite. But that's part one of the reason.	11 finding of richterite and winchite in the tissue is
12 Part two is something I can explain why	12 inconsistent and it shows that he did not have any
13 that portion of what was found in his lungs would be	13 exposure from the W.R. Grace facility.
14 inconsistent with an exposure from Libby, Montana.	14 A Well, if you have -- if you have the type
15 Q Okay. I can't wait. We'll get there in a 11:18:36	15 of exposure, in my opinion, to get a finding of 11:21:18
16 second.	16 tremolite, winchite, richterite in somebody's lungs,
17 Let me first ask you, have you ever read	17 why isn't there any vermiculite particulates in
18 any studies regarding the bio-persistence of	18 there, since the winchite, richterite on the
19 vermiculite in tissue?	19 processed material is going to count for maybe a
20 A Not for vermiculite, no. I'm not aware 11:19:01	20 half, at the most, 1 percent. What happened to the 11:21:40
21 that there is some bio-persistence.	21 other 99 percent? All been cleared out by the
22 Q Well, so one of the things you mentioned	22 lungs? They say talcum powder is cleared out by the
23 before is that we didn't see vermiculite in his	23 lungs, but can't seem to find it. When somebody has
24 tissue.	24 -- excuse me -- when somebody has had fairly
25 Do you know whether somebody who had an 11:19:12	25 significant exposure to it. 11:21:58
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1 exposure to vermiculite -- just the mineral 11:19:16	1 And we're dealing with where you can find 11:22:02
2 vermiculite, now, not accessory minerals -- that	2 winchite, richterite, tremolite in cosmetic talcs.
3 ended in 1990 would be expected to have any	3 And there is no -- I don't think there is any
4 vermiculite in his tissue?	4 dispute that Mr. Eagles' lung tissue has significant
5 A If he's using a vermiculite product in the 11:19:35	5 talc particles, significant fibrous talc particles. 11:22:18
6 1990s, I would expect it to still be in his lungs	6 So you're looking at -- in my opinion, you're
7 with anything else he inhaled.	7 looking for another source to account for the
8 Q Based on what?	8 tremolite or the winchite, richterite. And I just
9 A Based on findings we've had in the past	9 don't think it's feasible.
10 where somebody who has those type of exposures on 11:19:51	10 Q Okay. Again, so you're saying that -- but 11:22:35
11 lung tissue analysis. But when that was done many,	11 you have no published data on whether -- so you have
12 many years ago -- I don't know -- or I don't know if	12 no published data, as I understand it, about how
13 I could find it.	13 long vermiculite is likely to stay in lung tissue,
14 Q Okay. We're going to request that, to the	14 right?
15 extent you're going to rely on it. Otherwise, we'll 11:20:10	15 A Yeah. I don't recall if I've seen that or 11:22:54
16 move to exclude it if we cannot review the data.	16 not.
17 Incidentally, you're taking notes during	17 Q Okay. So let me give you a hypothetical.
18 the deposition?	18 You've got an individual who just has tremolite in
19 A Excuse me?	19 their lungs. And you're involved in a case, lung
20 Q You're taking notes? 11:20:22	20 tissue. You're involved in a case against a 11:23:10
21 A No. I'm mostly doodling.	21 chrysotile company.
22 Q Okay. Well, we'll request your doodles,	22 Do you look at that and say, "Hey, I see
23 if nothing else, just to see if you're drawing	23 tremolite here, but no chrysotile, so that means the
24 caricatures of me.	24 tremolite must have come from something else"?
25 A I'm not that good a drawer, but I do have 11:20:37	25 MR. SATTERLEY: Objection. Incomplete 11:23:29
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<p>1 hypothetical. 11:23:30</p> <p>2 THE WITNESS: Well, one of the things we</p> <p>3 do know -- your hypothetical -- your hypothetical is</p> <p>4 correct, and we have solid evidence that they worked</p> <p>5 at -- with chrysotile and in significant amount, 11:23:44</p> <p>6 such as a chrysotile miner. They routinely found</p> <p>7 tremolite, anthophyllite in the lungs. We know that</p> <p>8 chrysotile has some bio-persistence in some people</p> <p>9 where it migrates out, you know, into the lymph area</p> <p>10 or outside on that issue of the lung. 11:24:10</p> <p>11 So it just depends. If that is the</p> <p>12 only -- if your hypothetical is the only thing we</p> <p>13 have, no talc exposure, but he worked with -- but he</p> <p>14 worked with chrysotile products and there's</p> <p>15 tremolite found but no chrysotile, yes, I'd say that 11:24:32</p> <p>16 was consistent with chrysotile exposure.</p> <p>17 BY MR. DUBIN:</p> <p>18 Q So the fact that -- so, to the extent that</p> <p>19 amphiboles are associated with a high</p> <p>20 bio-persistence, in other words, they stay in the 11:24:46</p> <p>21 tissue for a very long time, right?</p> <p>22 A Correct.</p> <p>23 Q And so the fact that an amphibole may have</p> <p>24 entered the body along with something like a</p> <p>25 chrysotile and the chrysotile leaves before you -- 11:25:00</p> <p style="text-align: right;">Page 207</p>	<p>1 BY MR. DUBIN: 11:26:24</p> <p>2 Q So --</p> <p>3 MR. SATTERLEY: Why do you have to attack</p> <p>4 everybody?</p> <p>5 MR. DUBIN: Why? Because I don't trust 11:26:32</p> <p>6 that guy as far as I can throw him. And two, I was</p> <p>7 joking a little bit, but not very much. But I'm</p> <p>8 sure you -- I'm sure if I picked your greatest hits</p> <p>9 of how you feel about Dr. Sanchez and what you've</p> <p>10 said about him, I'm pretty sure "attack" would be a 11:26:49</p> <p>11 kind word for it, Joe.</p> <p>12 MR. SATTERLEY: We've been going almost an</p> <p>13 hour. Just let us know when you're ready for a</p> <p>14 break.</p> <p>15 BY MR. DUBIN: 11:27:05</p> <p>16 Q Okay. Are you on Structure 6?</p> <p>17 A Sorry?</p> <p>18 Q Sorry. I was gonna -- in your report,</p> <p>19 there is a Structure 6 that you said some would call</p> <p>20 that richterite. And you said there's a lot of 11:27:18</p> <p>21 debate sometimes which type is richterite.</p> <p>22 Are you saying it's definitely one or the</p> <p>23 other, richterite or winchite, or are you saying it</p> <p>24 could be something else? I just want to make sure</p> <p>25 I'm clear. 11:27:40</p> <p style="text-align: right;">Page 209</p>
<p>1 before you perform a fiber burden analysis, that 11:25:04</p> <p>2 doesn't mean that the tremolite wasn't from the</p> <p>3 chrysotile, right?</p> <p>4 MR. SATTERLEY: Objection. Incomplete</p> <p>5 hypothetical. 11:25:13</p> <p>6 THE WITNESS: If we -- you know, it's --</p> <p>7 if we have a history of chrysotile exposure and no</p> <p>8 chrysotile was found in the lung tissue, but we</p> <p>9 don't have any -- but we don't have other exposures</p> <p>10 other than chrysotile products, and it's only 11:25:32</p> <p>11 tremolite, certainly that would be consistent with a</p> <p>12 chrysotile exposure -- a significant chrysotile</p> <p>13 exposure.</p> <p>14 BY MR. DUBIN:</p> <p>15 Q Now, let me make sure I understand what 11:25:48</p> <p>16 you had said about the structures in your re- -- in</p> <p>17 your analysis of the Gordon stubs.</p> <p>18 MR. SATTERLEY: Gordon stubs?</p> <p>19 MR. DUBIN: Sorry. I've got too many</p> <p>20 other cases in my head. Aram. 11:26:09</p> <p>21 MR. SATTERLEY: Okay. I thought you hired</p> <p>22 Dr. Gordon to be your witness.</p> <p>23 MR. DUBIN: Yeah. If I could get him out</p> <p>24 of witness protection, wherever he's hiding.</p> <p>25 ////</p> <p style="text-align: right;">Page 208</p>	<p>1 A Let me get to Structure 6. 11:27:42</p> <p>2 Q Sure.</p> <p>3 A Just give me a second.</p> <p>4 Q No problem.</p> <p>5 MR. SATTERLEY: Which report? 11:28:09</p> <p>6 THE WITNESS: I'm saying it's definitely</p> <p>7 one or the other.</p> <p>8 MR. SATTERLEY: Which report?</p> <p>9 MR. DUBIN: I think this is the SEM</p> <p>10 confirmation analysis, page 8, No. 2, the second 11:28:15</p> <p>11 one.</p> <p>12 BY MR. DUBIN:</p> <p>13 Q Is that correct?</p> <p>14 What's the color of what you're looking</p> <p>15 at? 11:28:32</p> <p>16 A Well, the one I saw was the MVA SEM</p> <p>17 confirmation analysis, No. 6 for --</p> <p>18 Q I can call it up if it's easier.</p> <p>19 A I've got it here.</p> <p>20 Q Yeah, okay. 11:28:45</p> <p>21 A This is -- I was just looking at it. This</p> <p>22 would be No. 6 on the MVA SEM confirmation analysis.</p> <p>23 Q Right. Here we are.</p> <p>24 A And I may have one over in ours.</p> <p>25 Q That's fine. I'm just talking about this 11:29:09</p> <p style="text-align: right;">Page 210</p>

<p>1 one. 11:29:10</p> <p>2 You said -- so you're saying it is either</p> <p>3 richterite or winchite?</p> <p>4 MR. SATTERLEY: Let me object.</p> <p>5 Wait a second. You're looking at a 11:29:18</p> <p>6 different report than what he said he's looking at.</p> <p>7 He's looking at the MVA data, and you're showing him</p> <p>8 the MAS data.</p> <p>9 MR. DUBIN: Are we looking at Structure 6,</p> <p>10 Jake? 11:29:31</p> <p>11 THE WITNESS: Yeah. But this is not --</p> <p>12 MR. KEESTER: This is Structure 6, yeah.</p> <p>13 BY MR. DUBIN:</p> <p>14 Q This is the structure I was asking you</p> <p>15 about initially because -- 11:29:39</p> <p>16 A Oh, sorry. Because that's not winchite or</p> <p>17 richterite. That's fibrous talc.</p> <p>18 Q Okay. In your deposition, you were saying</p> <p>19 structure -- we were talking about Structure 6. I'm</p> <p>20 not sure what the disconnect would be. 11:29:52</p> <p>21 MR. SATTERLEY: The disconnect is you're</p> <p>22 talking about the wrong report. The MVA report has</p> <p>23 got the Structure 6.</p> <p>24 MR. DUBIN: All right. Let's call the</p> <p>25 other report up, Jake. 11:30:03</p> <p style="text-align: right;">Page 211</p>	<p>1 BY MR. DUBIN: 11:31:26</p> <p>2 Q Okay.</p> <p>3 A Yes. That's what we're looking at.</p> <p>4 Q And let's make sure Structure 9. Keep</p> <p>5 going down. 11:31:39</p> <p>6 A Structure 9?</p> <p>7 Q Isn't there a Structure 9?</p> <p>8 A No.</p> <p>9 Q Probably in the other report then.</p> <p>10 MR. DUBIN: Jake, pull up Structure 9 from 11:31:46</p> <p>11 the other report.</p> <p>12 MR. KEESTER: Can you see this?</p> <p>13 MR. DUBIN: All right. Let me move to</p> <p>14 another topic. Jake, we'll do this after a break.</p> <p>15 BY MR. DUBIN: 11:32:07</p> <p>16 Q All right. So I want to talk about --</p> <p>17 let's just pull this down, Jake. And we'll talk it</p> <p>18 through before we go back in here.</p> <p>19 Let me ask you, are you offering an</p> <p>20 opinion about where any richterite or winchite that 11:32:21</p> <p>21 was found in Mr. Eagles' tissue came from?</p> <p>22 A It came from his exposure to the cosmetic</p> <p>23 talc. That's my opinion.</p> <p>24 Q Are you aware of any geological literature</p> <p>25 that has shown the presence of winchite or 11:32:43</p> <p style="text-align: right;">Page 213</p>
<p>1 MR. SATTERLEY: That's the MAS report. 11:30:04</p> <p>2 MR. DUBIN: That's fine.</p> <p>3 MR. SATTERLEY: They both have "MAS" on</p> <p>4 them. That's where the confusion is. One also has</p> <p>5 "MVA." 11:30:11</p> <p>6 MR. DUBIN: No problem. Somebody -- it's</p> <p>7 just the wrong one was keyed in the outline. So</p> <p>8 let's call up the correct report.</p> <p>9 BY MR. DUBIN:</p> <p>10 Q So you're saying this is either winchite 11:30:32</p> <p>11 or richterite, right?</p> <p>12 MR. SATTERLEY: Wait a second. That says</p> <p>13 "Structure 4."</p> <p>14 MR. DUBIN: Structure 6.</p> <p>15 THE WITNESS: Let's see the -- make sure 11:30:46</p> <p>16 we're on the right one.</p> <p>17 No. That's the A1b. We want to go to the</p> <p>18 B1b, No. 6.</p> <p>19 There we go.</p> <p>20 BY MR. DUBIN: 11:31:10</p> <p>21 Q So that is winchite or richterite? Now</p> <p>22 we're looking at JA23-006-B1b. It's labeled</p> <p>23 Structure 6. Just make sure we're --</p> <p>24 MR. SATTERLEY: Objection. Compound.</p> <p>25 ////</p> <p style="text-align: right;">Page 212</p>	<p>1 richterite in the Italian, Vermont, or Chinese talc 11:32:50</p> <p>2 mines that Johnson & Johnson used?</p> <p>3 A I don't know. That's really not my area</p> <p>4 on the geological formation of -- I can tell you</p> <p>5 that we have found the richterite/winchite in the 11:33:12</p> <p>6 J&J Chinese analysis we've done in the past. So his</p> <p>7 exposure is to cosmetic talc. And it's my opinion</p> <p>8 this is -- everything in his lungs -- the</p> <p>9 richterite/winchite, the tremolite, the talc plates,</p> <p>10 the fibrous talc, just tremolite itself came from 11:33:47</p> <p>11 his use of cosmetic talcs or body powder talcs.</p> <p>12 Q Okay. So which --</p> <p>13 MR. SATTERLEY: I'm asking for a break</p> <p>14 again whenever --</p> <p>15 THE WITNESS: Yes, that would be good. 11:34:02</p> <p>16 MR. SATTERLEY: About five minutes ago I</p> <p>17 requested a break.</p> <p>18 MR. DUBIN: If the witness needs a break,</p> <p>19 that's fine, Joe. I mean, I'm sure you can sit for</p> <p>20 more than an hour. But that's fine. We have 11:34:11</p> <p>21 limited time. We're going to have to take quicker</p> <p>22 breaks. And again, I think we can go longer than an</p> <p>23 hour between breaks. All right. So we'll take 10</p> <p>24 minutes now.</p> <p>25 THE WITNESS: Okay. Great. Thank you. 11:34:24</p> <p style="text-align: right;">Page 214</p>

<p>1 THE VIDEOGRAPHER: Off the record at 11:34:26</p> <p>2 11:34 a.m.</p> <p>3 (Recess taken.)</p> <p>4 THE VIDEOGRAPHER: On the record.</p> <p>5 11:43 a.m. 11:43:01</p> <p>6 BY MR. DUBIN:</p> <p>7 Q All right. So you said before the break</p> <p>8 that you had found -- that you had reported</p> <p>9 richterite in Chinese talc. Do you know what report</p> <p>10 you ever reported richterite in Chinese talc? 11:43:18</p> <p>11 A Well, it was a J&J. I may have also -- I</p> <p>12 know we've found it a couple times. I'd have to</p> <p>13 check and see. But I'm pretty sure one was Chinese.</p> <p>14 And I'd just have to go back and look at them. This</p> <p>15 would all be something that I've turned over to J&J. 11:43:42</p> <p>16 Maybe, you know, the MDL samples. Not the Chinese,</p> <p>17 but I'd have to look at the vermiculite in the --</p> <p>18 excuse me, not vermiculite -- the Vermont, Italian,</p> <p>19 and then it may have been Simon Greenstone Chinese.</p> <p>20 Q Okay. I'm going to leave open Exhibit 22. 11:44:09</p> <p>21 And if you could please provide us any report that</p> <p>22 you believe of Johnson & Johnson that you believe</p> <p>23 shows a finding of richterite, and including but not</p> <p>24 limited to the Chinese report, if there is one?</p> <p>25 (Exhibit 22 marked for identification.) 11:44:31</p> <p style="text-align: right;">Page 215</p>	<p>1 offering the opinion that the winchite or richterite 11:45:49</p> <p>2 in Mr. Eagles' tissue came from talc, are you</p> <p>3 offering an opinion that it came from Johnson &</p> <p>4 Johnson talc?</p> <p>5 A Well, there's three talc exposures. I 11:46:02</p> <p>6 can't say it's from Johnson & Johnson. There's</p> <p>7 Longs, there's the Safeway, and Johnson & Johnson.</p> <p>8 Now, Johnson & Johnson, in my opinion, was</p> <p>9 the primary exposure. But I can't say it came from</p> <p>10 Johnson & Johnson versus one of the others. 11:46:21</p> <p>11 Q What would be your basis for saying that</p> <p>12 the winchite was from Johnson & Johnson if you have</p> <p>13 never found winchite in any Johnson & Johnson</p> <p>14 products?</p> <p>15 A Well, let's back up. 11:46:35</p> <p>16 I said richterite/winchite. We're looking</p> <p>17 at an SEM analysis of a tissue sample versus a TEM</p> <p>18 analysis of -- where you can get a better idea of</p> <p>19 the chemistry. You won't have interfering factors,</p> <p>20 such as sodium chloride maybe. That's all I'm 11:46:58</p> <p>21 saying. This is SEM versus TEM.</p> <p>22 Q Your analysis of the Johnson & Johnson</p> <p>23 containers was by TEM, right?</p> <p>24 A Correct.</p> <p>25 Q Are you saying then that if what is in 11:47:20</p> <p style="text-align: right;">Page 217</p>
<p>1 MR. SATTERLEY: Morty, if you -- the same 11:44:33</p> <p>2 defense was in the Leavitt case. There was a</p> <p>3 report, we used it in Leavitt -- the same W.R. Grace</p> <p>4 defense was in the Leavitt case. So I can provide</p> <p>5 it to you if you need me to. 11:44:46</p> <p>6 MR. DUBIN: I know what he said in</p> <p>7 Leavitt, but he didn't mention a Chinese report in</p> <p>8 Leavitt. So I want to make that sure I've got</p> <p>9 everything that he's relying on, including any</p> <p>10 Chinese report where he's -- Dr. Longo is purporting 11:44:57</p> <p>11 to find richterite, or at least I want to be clear</p> <p>12 if there is none.</p> <p>13 So I'm leaving that -- I'm going to leave</p> <p>14 that open. And if the deposition continues, which I</p> <p>15 assume it may, we can talk about whatever report 11:45:09</p> <p>16 that is. I'm aware of the one. So I may ask you</p> <p>17 about that.</p> <p>18 BY MR. DUBIN:</p> <p>19 Q Before I ask you more about that, you</p> <p>20 mentioned winchite and richterite. 11:45:25</p> <p>21 Have you ever reported finding winchite in</p> <p>22 a Johnson & Johnson talc product?</p> <p>23 A I think we've only reported richterite. I</p> <p>24 don't know if I can recall a winchite or not.</p> <p>25 Q So, when you are saying that you're 11:45:46</p> <p style="text-align: right;">Page 216</p>	<p>1 Mr. Eagles' tissue is richterite, then you're saying 11:47:23</p> <p>2 it's consistent with what you found in Johnson &</p> <p>3 Johnson, but if it's winchite, then it's not?</p> <p>4 A No. I was just answering your question.</p> <p>5 Because in my opinion, it was somewhat misleading 11:47:38</p> <p>6 that I was saying it could be richterite or</p> <p>7 winchite. You know, you've got to look at the</p> <p>8 sodium peak versus the potassium peak. And we're</p> <p>9 dealing with a tissue analysis and an SEM EDS where</p> <p>10 you can have, you know, interfering things 11:47:57</p> <p>11 sometimes, depending on the -- depending on what you</p> <p>12 have.</p> <p>13 TEM, you have a better ability to -- to</p> <p>14 determine one versus the other.</p> <p>15 Q All right. But so what I'm trying to 11:48:20</p> <p>16 figure out is what is your problem with the fact</p> <p>17 that -- or not a problem, but what significance is</p> <p>18 it that it's SEM?</p> <p>19 So are you saying that you can't tell</p> <p>20 whether it's consistent with your findings in J&J 11:48:32</p> <p>21 because you can't tell whether what's in Mr. Eagles'</p> <p>22 tissue is really richterite or winchite?</p> <p>23 A No. Again, I'll start from the beginning.</p> <p>24 It is a tremolite asbestos solid solution</p> <p>25 series type minerals. We have either winchite or 11:48:55</p> <p style="text-align: right;">Page 218</p>

<p>1 richterite or actinolite. Certainly not actinolite. 11:48:58</p> <p>2 We have a fairly sizable sodium peak. And</p> <p>3 then we have a potassium peak. Because this is a</p> <p>4 tissue sample and because it is SEM, you can't get a</p> <p>5 small spot size like you can in TEM. With SEM, you 11:49:18</p> <p>6 tend to get -- you tend to get -- sometimes you may</p> <p>7 get some other materials in there, specifically if</p> <p>8 it's a tissue sample, unless you can show one from</p> <p>9 the other.</p> <p>10 Now, we have other examples in there where 11:49:33</p> <p>11 we're not seeing sodium, so maybe not. But to make</p> <p>12 the -- so SEM can identify tremolite. It can</p> <p>13 identify that it's -- that you have one of the solid</p> <p>14 solution series. It's a little bit tricky on the</p> <p>15 winchite versus richterite. That's all I'm saying. 11:49:53</p> <p>16 Q All right. If the mineral that you've</p> <p>17 found in Mr. Eagles' tissue is winchite, then would</p> <p>18 you agree that that is not consistent with anything</p> <p>19 you've found in Johnson & Johnson product before?</p> <p>20 A It depends on where I found it and what I 11:50:13</p> <p>21 was using. I've already told you now about --</p> <p>22 you're saying if this, if that. I don't know. And</p> <p>23 I'd have to look at what the finding is.</p> <p>24 Right now, what we have is a richterite,</p> <p>25 richterite slash, in my opinion, winchite slash. 11:50:33</p> <p style="text-align: right;">Page 219</p>	<p>1 that would account for that. 11:51:44</p> <p>2 BY MR. DUBIN:</p> <p>3 Q Okay. And, when you say it's a cosmetic</p> <p>4 talc exposure, I'm asking you whether you would say</p> <p>5 it's consistent with your findings from Johnson & 11:51:55</p> <p>6 Johnson products.</p> <p>7 MR. SATTERLEY: Objection. Asked and</p> <p>8 answered twice.</p> <p>9 THE WITNESS: I believe what we found was</p> <p>10 richterite. But, you know, compared to the overall 11:52:03</p> <p>11 totality of what Johnson & Johnson has sold and the</p> <p>12 overall thousands and thousands and thousands of</p> <p>13 tons, I'm assuming, we have a small population. But</p> <p>14 I don't -- but mainly, I don't have any -- any other</p> <p>15 evidence of any other exposure that would account 11:52:29</p> <p>16 for a natural -- naturally-occurring asbestos</p> <p>17 material.</p> <p>18 BY MR. DUBIN:</p> <p>19 Q Well, an exposure to a Libby amphibole</p> <p>20 from vermiculite could account for winchite and 11:52:44</p> <p>21 richterite in the tissue?</p> <p>22 MR. SATTERLEY: Objection.</p> <p>23 BY MR. DUBIN:</p> <p>24 Q Correct?</p> <p>25 MR. SATTERLEY: Assumes facts not in 11:52:52</p> <p style="text-align: right;">Page 221</p>
<p>1 Could be one or the other. 11:50:37</p> <p>2 Q I don't know how to ask my question any</p> <p>3 more clearly, so I guess we're not going to get an</p> <p>4 answer.</p> <p>5 MR. SATTERLEY: Objection. Argumentative. 11:50:50</p> <p>6 MR. DUBIN: Well, I mean, I just don't</p> <p>7 see --</p> <p>8 MR. SATTERLEY: He's answered the</p> <p>9 question.</p> <p>10 BY MR. DUBIN: 11:50:56</p> <p>11 Q The particle in the tissue -- in</p> <p>12 Mr. Eagles' tissue is properly identified as</p> <p>13 winchite. Okay? So now, however you identify, do</p> <p>14 you know for certain it's winchite? The finding of</p> <p>15 winchite in his tissue is not something that's 11:51:10</p> <p>16 consistent with your testing of Johnson & Johnson,</p> <p>17 correct?</p> <p>18 MR. SATTERLEY: Objection. Asked and</p> <p>19 answered now three times.</p> <p>20 MR. DUBIN: Okay. He's not answering. 11:51:18</p> <p>21 THE WITNESS: If your hypothetical is</p> <p>22 correct and it could be positively identified as</p> <p>23 winchite, based on the evidence in this case, I</p> <p>24 would still call it a cosmetic talc exposure because</p> <p>25 we don't have any evidence of any other exposure 11:51:40</p> <p style="text-align: right;">Page 220</p>	<p>1 evidence. Calls for speculation. 11:52:52</p> <p>2 THE WITNESS: I don't have any evidence</p> <p>3 that that happened. If you're looking at -- if</p> <p>4 you're in Libby, Montana, sure.</p> <p>5 BY MR. DUBIN: 11:53:04</p> <p>6 Q All right. I want to talk a little bit</p> <p>7 about talc use next.</p> <p>8 A Sure. Okay.</p> <p>9 MR. DUBIN: Could we call up, Jake,</p> <p>10 Tab 15. It's already an exhibit. It's one set of 11:53:17</p> <p>11 your notes.</p> <p>12 MR. SATTERLEY: What are you calling up?</p> <p>13 I'm sorry.</p> <p>14 MR. DUBIN: It's Dr. Longo's notes. The</p> <p>15 tab number is just so that Jake can find it. It's 11:53:34</p> <p>16 Tab 15.</p> <p>17 MR. KEESTER: I'll pull it up.</p> <p>18 BY MR. DUBIN:</p> <p>19 Q We can go to page 9.</p> <p>20 Okay. First part -- I want to ask you 11:54:12</p> <p>21 about this. It says "Of the three baby powder</p> <p>22 products, it's my opinion that Mr. Eagles used</p> <p>23 Johnson's baby powder the most, 1955 to 2017,</p> <p>24 followed by the Longs and Safeway baby powder</p> <p>25 products, 1950s, 1960s to 1980s or 1990s." 11:54:28</p> <p style="text-align: right;">Page 222</p>

<p>1 Do you see that? 11:54:32</p> <p>2 A I do.</p> <p>3 Q First, are you indicating here by listing</p> <p>4 '50s, '60s to '80s or '90s that Mr. Eagles stopped</p> <p>5 using Longs or Safeway baby powder in the 1990s? 11:54:47</p> <p>6 A I mean, that's what -- what he stated. He</p> <p>7 didn't know if it was 1980s or 1990s.</p> <p>8 Q Okay. You've used some terms about either</p> <p>9 primary or majorities.</p> <p>10 Do you have any opinion about the 11:55:10</p> <p>11 percentage of use of Johnson & Johnson products</p> <p>12 versus the other talcum powder products that</p> <p>13 Mr. Eagles used?</p> <p>14 A The only opinion I have, it's more likely</p> <p>15 than not greater than 50 percent. 11:55:39</p> <p>16 Q And explain to me one more time what your</p> <p>17 greater than 50 percent opinion is based on?</p> <p>18 A That Mrs. Eagles said that's what she --</p> <p>19 that's what she bought only, that Mr. Eagles stated</p> <p>20 that he started using it in 19 -- I mean, he started 11:56:01</p> <p>21 using Johnson & Johnson in 1955 for about a year,</p> <p>22 and started at 13, and that in -- that most of the</p> <p>23 products, more than 50 percent, maybe 51 percent,</p> <p>24 were the other two. Then I guess it's about</p> <p>25 25 percent each maybe. 11:56:23</p> <p style="text-align: right;">Page 223</p>	<p>1 Q Did you see Mr. Eagles' testimony that 11:58:00</p> <p>2 they normally shopped together when they went</p> <p>3 shopping?</p> <p>4 MR. SATTERLEY: Objection.</p> <p>5 THE WITNESS: I don't remember the 11:58:10</p> <p>6 "normally." I understand Mr. Eagles went with</p> <p>7 Mrs. Eagles at times, but I understood that she did</p> <p>8 it more than he did.</p> <p>9 BY MR. DUBIN:</p> <p>10 Q How often are you assuming that 11:58:22</p> <p>11 Mrs. Eagles went shopping and bought talcum powder</p> <p>12 without Mr. Eagles?</p> <p>13 A Just more times than she went with him, or</p> <p>14 he went with her.</p> <p>15 Q So I want to make sure I'm understanding. 11:58:41</p> <p>16 So, if they were shopping together, which</p> <p>17 brand would they buy?</p> <p>18 A If they were shopping together and she was</p> <p>19 doing the shopping, I don't know if I have that</p> <p>20 answer. 11:58:57</p> <p>21 Q Okay.</p> <p>22 A I would assume, if he went with her versus</p> <p>23 her going with him, it would have been Johnson &</p> <p>24 Johnson. But that's just my assumption.</p> <p>25 Q Do you have any record basis for that 11:59:07</p> <p style="text-align: right;">Page 225</p>
<p>1 Q Let's break that down a little bit. 11:56:27</p> <p>2 So Mr. Eagles also purchased talcum</p> <p>3 powder, right?</p> <p>4 A Correct. He would also purchase it. And</p> <p>5 he said he would look for the cheapest stuff, stuff 11:56:39</p> <p>6 on sale, et cetera.</p> <p>7 Q And that the cheapest stuff was typically</p> <p>8 the store brands, correct?</p> <p>9 A The Longs and the Safeway.</p> <p>10 Q Okay. And so you're saying Mrs. Eagles 11:56:54</p> <p>11 said that when she purchased, she would buy</p> <p>12 Johnson & Johnson, right?</p> <p>13 A Correct. You have that. And you also</p> <p>14 have that the Johnson's baby powder went up to 2017.</p> <p>15 Q We'll talk about that in a minute. But I 11:57:18</p> <p>16 just want to ask, how much -- so did you talk to the</p> <p>17 wife -- I think one of the things that you said in</p> <p>18 the last deposition was that Mr. Eagles' wife was</p> <p>19 the one doing the shopping.</p> <p>20 Is that something she told you in the 11:57:41</p> <p>21 interview or something that you knew from some other</p> <p>22 source?</p> <p>23 A Well, yeah, she told me that she did more</p> <p>24 shopping than he did and that she only purchased</p> <p>25 Johnson & Johnson baby powder. 11:57:57</p> <p style="text-align: right;">Page 224</p>	<p>1 assumption? 11:59:10</p> <p>2 MR. SATTERLEY: Objection. Assumes facts</p> <p>3 not in evidence.</p> <p>4 MR. DUBIN: The facts aren't in evidence</p> <p>5 then. 11:59:14</p> <p>6 BY MR. DUBIN:</p> <p>7 Q So you don't have a basis for the</p> <p>8 assumption?</p> <p>9 A That's why it's an assumption.</p> <p>10 Q Okay. So I just want to make sure I 11:59:25</p> <p>11 understand.</p> <p>12 So, whenever Mr. Eagles is going in</p> <p>13 shopping, he's buying less expensive products,</p> <p>14 presumably because he cares about price, right?</p> <p>15 A Well, let me -- you know, let me just look 11:59:42</p> <p>16 over my notes. He did care about price, but he</p> <p>17 stated his preferred talcum product was Johnson &</p> <p>18 Johnson, and that's what he started out with. That</p> <p>19 would be on page 2.</p> <p>20 Mr. Eagles stated he purchased Johnson & 11:59:57</p> <p>21 Johnson baby powder from Safeway, Luckys, and Longs</p> <p>22 stores, but also indicated that he started getting</p> <p>23 some of the store brands because they were cheaper.</p> <p>24 That's on page 3.</p> <p>25 Q Okay. Have you finished your answer? 12:00:17</p> <p style="text-align: right;">Page 226</p>

<p>1 A I'm just looking to see what else we have 12:00:19</p> <p>2 here. Give me a second.</p> <p>3 That's it. So that was his preferred</p> <p>4 brand. I took that as, if he could find something</p> <p>5 cheaper from time to time -- if he could find 12:01:02</p> <p>6 something cheaper, he would buy it. But that was</p> <p>7 his preferred brand. And his wife only purchased</p> <p>8 Johnson & Johnson for him.</p> <p>9 Q I guess I just -- so he's looking to save</p> <p>10 money. 12:01:18</p> <p>11 Did you ask whether there was ever any</p> <p>12 discussion or disagreement with them about, like,</p> <p>13 "Well, why are you buying the more expensive brand?</p> <p>14 If I was there, I would have bought the cheaper</p> <p>15 brands." Anything conversations like that? 12:01:31</p> <p>16 A I did not have any conversations like</p> <p>17 that, and I didn't see in testimony or conversations</p> <p>18 like that from defense attorneys asking him, that I</p> <p>19 can recall.</p> <p>20 Q I'm just trying to figure out, like, why 12:01:46</p> <p>21 would she be buying him more expensive products that</p> <p>22 when he shops he didn't feel he needed?</p> <p>23 A I guess you'll have to --</p> <p>24 MR. SATTERLEY: Asked and answered.</p> <p>25 ////</p> <p style="text-align: right;">Page 227</p>	<p>1 seeing anything later than that -- than 1955. If 12:03:54</p> <p>2 you can show that to me, I'd be happy to look at it.</p> <p>3 MR. DUBIN: Sure. Let's make the next</p> <p>4 exhibit in order, which I think it's 23, your</p> <p>5 declaration of 3/7/23, if we can pull that up. 12:04:17</p> <p>6 MR. SATTERLEY: What exhibit number is</p> <p>7 this.</p> <p>8 MR. DUBIN: I think it's 23. Go to</p> <p>9 paragraph 32 -- paragraph 32 of the declaration. So</p> <p>10 the declaration is in front. 12:05:10</p> <p>11 (Exhibit 23 marked for identification.)</p> <p>12 BY MR. DUBIN:</p> <p>13 Q Okay. First, this is your declaration?</p> <p>14 A I do.</p> <p>15 Q And you say, "I understand that Mr. Eagles 12:05:39</p> <p>16 has used Johnson's baby powder and generic brands of</p> <p>17 baby powder, including Longs and Safeway, from the</p> <p>18 1960s and through the 2000s."</p> <p>19 So why did you write that?</p> <p>20 A At the time, that's what I thought. 12:06:03</p> <p>21 Q Based on what?</p> <p>22 A At the time, that's what I thought.</p> <p>23 Certainly 1960s to 2000s.</p> <p>24 Q So here you have him starting later and</p> <p>25 ending earlier, right? 12:06:31</p> <p style="text-align: right;">Page 229</p>
<p>1 BY MR. DUBIN: 12:02:06</p> <p>2 Q That wasn't something you inquired -- was</p> <p>3 that something you inquired about?</p> <p>4 A No. What I inquired about, what they used</p> <p>5 the most. It was Johnson & Johnson. What was the 12:02:17</p> <p>6 preferred brand? It was in the deposition. It was</p> <p>7 Johnson & Johnson. What were the years of use?</p> <p>8 Johnson & Johnson had '55 all the way to 2017 versus</p> <p>9 the others. I think it's petty obvious myself.</p> <p>10 But, you know, that's just me. 12:02:33</p> <p>11 Q Okay. In your notes, if we go to page 5.</p> <p>12 A Okay. I'm there.</p> <p>13 Q Okay. So it should be from</p> <p>14 approximately -- oh, I see.</p> <p>15 In your notes, you reflect that he 12:03:01</p> <p>16 started -- sorry. Let's go to page 9 instead.</p> <p>17 A Page what?</p> <p>18 Q Nine.</p> <p>19 A All right.</p> <p>20 Q So here you write that he started personal 12:03:19</p> <p>21 use at age 13 in 1955; is that correct?</p> <p>22 A Correct.</p> <p>23 Q Have you seen other information indicating</p> <p>24 that he started later than that?</p> <p>25 A At the age of 13, 1955. I don't recall 12:03:50</p> <p style="text-align: right;">Page 228</p>	<p>1 A No. I've got him starting later and 12:06:36</p> <p>2 ending later, according to his testimony. But -- so</p> <p>3 that's what I thought at the time.</p> <p>4 Q Based on what?</p> <p>5 A Well, I don't recall. Based on -- based 12:06:56</p> <p>6 on whatever information I was getting.</p> <p>7 Q Well, it says here, "I understand that</p> <p>8 Plaintiff Marlin Eagles has provided deposition</p> <p>9 testimony in this case."</p> <p>10 Was it based on his deposition testimony? 12:07:16</p> <p>11 A I don't recall that far back.</p> <p>12 Q Okay. Was this based on information that</p> <p>13 Plaintiffs' counsel provided you?</p> <p>14 A I don't recall that far back.</p> <p>15 Q Okay. Can you tell me the process of 12:07:30</p> <p>16 writing the declaration?</p> <p>17 Did you draft it?</p> <p>18 A Again, I draft a lot of these or a lot of</p> <p>19 information that has been provided before, and I</p> <p>20 don't -- no, I don't start these from scratch 12:07:44</p> <p>21 anymore because a lot of these are just -- goes over</p> <p>22 the same material.</p> <p>23 Q So was it you or somebody at MAS who did</p> <p>24 the first draft of this?</p> <p>25 A No. I'm always given information like 12:07:59</p> <p style="text-align: right;">Page 230</p>

<p>1 this. I don't know where that information came from 12:08:02</p> <p>2 because it's too long ago. But, no, I don't write</p> <p>3 these whole things from scratch anymore.</p> <p>4 Q And again, to the extent it's not</p> <p>5 otherwise clear, if something was transmitted to you 12:08:15</p> <p>6 that gave you that information prior to your writing</p> <p>7 this declaration, we are requesting it as well as</p> <p>8 any communications related to the preparation of</p> <p>9 this.</p> <p>10 But suffice it to say, so you prepared the 12:08:28</p> <p>11 declaration. And it says this. And did -- I assume</p> <p>12 Plaintiffs' counsel never told you that that</p> <p>13 information in paragraph 32 was in any way wrong.</p> <p>14 Is that correct?</p> <p>15 A That's correct. 12:08:47</p> <p>16 Q And did you ever see anywhere in any of</p> <p>17 Mr. Eagles' depositions that he first used baby</p> <p>18 powder products on himself in his 20s, 30s or maybe</p> <p>19 even 40s?</p> <p>20 A What I have is in my -- in my notes where 12:09:13</p> <p>21 he stated about some of the different ones. That's</p> <p>22 all I got is what he stated.</p> <p>23 Q Okay. To the extent there was deposition</p> <p>24 testimony to that effect, is that something you</p> <p>25 would typically note and put in your notes? 12:09:33</p> <p style="text-align: right;">Page 231</p>	<p>1 long did you model applications on his feet? 12:12:32</p> <p>2 How long did you have him doing that</p> <p>3 until?</p> <p>4 A From 1969 to 2021 when he stopped.</p> <p>5 Q You didn't have any discussion about why 12:12:52</p> <p>6 he stopped using it on his body?</p> <p>7 A No.</p> <p>8 Q So you tested two bottles in this case?</p> <p>9 A I did.</p> <p>10 Q Neither was Johnson & Johnson, correct? 12:13:11</p> <p>11 A That is correct.</p> <p>12 Q So presumably the plaintiff had no</p> <p>13 Johnson & Johnson talcum powder in his possession.</p> <p>14 Is that correct?</p> <p>15 A That's correct. 12:13:26</p> <p>16 Q The two bottles, how old were they?</p> <p>17 A I don't know. I don't know if there was</p> <p>18 any dates on or not. I don't know how many there</p> <p>19 are.</p> <p>20 Q Did you have -- you had the actual bottles 12:14:01</p> <p>21 in your possession?</p> <p>22 A Yes, sir. I believe so.</p> <p>23 Q Do you still have them?</p> <p>24 A I would assume so.</p> <p>25 Q Okay. 12:14:12</p> <p style="text-align: right;">Page 233</p>
<p>1 A On page 9 of my notes, I have, of the 12:09:50</p> <p>2 three baby powder products, and I have from</p> <p>3 Johnson's baby powder, 1955 to '20, followed by</p> <p>4 Longs and Safeway products, '50s, '60s to '80s or</p> <p>5 '90s. I just put in there what he stated. 12:10:07</p> <p>6 Q You indicated -- you can take this down,</p> <p>7 Jake -- in your notes that Mr. Eagles continued to</p> <p>8 use Johnson & Johnson, according to your notes, up</p> <p>9 until 2017, correct?</p> <p>10 A Correct. 12:10:25</p> <p>11 Q Did you ask him why he stopped using</p> <p>12 talcum powder in 2017?</p> <p>13 A Well, technically, he didn't stop using</p> <p>14 cosmetic talcum powder in 2017. What he stopped</p> <p>15 doing was full body. 12:11:51</p> <p>16 I don't recall if he told me why he</p> <p>17 stopped the full body. But he continued to use it</p> <p>18 when he played tennis up to 2021. And he stopped</p> <p>19 playing tennis because he started getting -- because</p> <p>20 I guess the symptoms of the mesothelioma that was 12:12:06</p> <p>21 developing in him, he couldn't play.</p> <p>22 Q So, when you say 2017, you're intending</p> <p>23 that to only be used on the body?</p> <p>24 A Correct.</p> <p>25 Q Okay. In your exposure calculation, how 12:12:28</p> <p style="text-align: right;">Page 232</p>	<p>1 MR. DUBIN: We're going to request, and 12:14:14</p> <p>2 we'll follow up, to meet and confer about what makes</p> <p>3 sense, whether we need the physical bottles or</p> <p>4 photographs of the remaining sides of the bottles to</p> <p>5 the extent they're not all captured in your report. 12:14:25</p> <p>6 And we'll just make that a discovery request. I'm</p> <p>7 not going to leave an exhibit open for it.</p> <p>8 BY MR. DUBIN:</p> <p>9 Q But you don't know whether those</p> <p>10 bottles -- 12:14:38</p> <p>11 MR. SATTERLEY: I'm going to object. Fact</p> <p>12 discovery is closed.</p> <p>13 MR. DUBIN: Okay. Well, I don't care if</p> <p>14 you object. We can talk about it later.</p> <p>15 BY MR. DUBIN: 12:14:47</p> <p>16 Q Dr. Longo, you don't know whether there is</p> <p>17 any dates on those bottles on portions that you</p> <p>18 didn't photograph that would indicate when they may</p> <p>19 have been manufactured, right?</p> <p>20 A I'm looking at the photographs now. There 12:14:59</p> <p>21 is no date on them.</p> <p>22 Q And I don't have those reports here. What</p> <p>23 sides have you -- are photographed?</p> <p>24 A Well, we do a photo like get the whole</p> <p>25 bottle. And then we zero in on the printing on the 12:15:16</p> <p style="text-align: right;">Page 234</p>

<p>1 back so you can read it (indicating). 12:15:20</p> <p>2 Q Okay. I'll take a look at that and see</p> <p>3 whether we still need them nor not. We'll follow up</p> <p>4 by letter.</p> <p>5 Okay. So a little bit about your 12:15:36</p> <p>6 calculation. So you have a calculation for body</p> <p>7 use. And you have 62 years of use and</p> <p>8 approximately, what, 12,896 applications?</p> <p>9 A Correct.</p> <p>10 Q And that's based on an average of using it 12:16:04</p> <p>11 on his body four days a week for 62 years?</p> <p>12 A Correct.</p> <p>13 Q And the amount of powder that you're</p> <p>14 saying he puts on his body per application is about</p> <p>15 2 to 3 teaspoons; is that right? 12:16:27</p> <p>16 A Well, he said it was more than</p> <p>17 2 teaspoons. So somewhere between, you know, 2 1/2</p> <p>18 to 3 teaspoons. So I just used 2 1/2, I believe it</p> <p>19 is.</p> <p>20 Q So 8 grams. Just -- okay. So 8 grams is 12:16:48</p> <p>21 2 1/2 teaspoons?</p> <p>22 A Each teaspoon is 3.8 grams. So</p> <p>23 2 teaspoons would be 7.6. A half of a teaspoon</p> <p>24 would be 1.9, almost 2. So that would be 9.5. So I</p> <p>25 took a conservative 8 grams. 12:17:19</p> <p style="text-align: right;">Page 235</p>	<p>1 conservative 1 gram per shake would equal 4 grams of 12:18:50</p> <p>2 talcum powder. So he's using -- so let's see -- so</p> <p>3 how much is that? How much is that in teaspoons</p> <p>4 that he's putting on his foot and how much in</p> <p>5 teaspoons is he putting on each shoe? 12:19:10</p> <p>6 A Well, he has one application per day. So</p> <p>7 52 years times 52 weeks, one application per day.</p> <p>8 That comes to 8,102 applications.</p> <p>9 Q I'm just trying to focus on one individual</p> <p>10 circumstance. So he's putting -- first, how many 12:19:43</p> <p>11 teaspoons is he putting on his feet, and then how</p> <p>12 many teaspoons is he putting in his shoes?</p> <p>13 A Well, I'm saying 1 gram per each shake. A</p> <p>14 teaspoon is 3.8 grams. So that would be one --</p> <p>15 approximately 1/4 of a teaspoon, 25 percent of a 12:20:02</p> <p>16 teaspoon on his feet and 25 of a teaspoon in his</p> <p>17 shoe.</p> <p>18 Q On each foot you're saying?</p> <p>19 A On each foot. So you have 4 grams total.</p> <p>20 You've got 1 gram, 1 gram. 1 gram on his foot, 12:20:22</p> <p>21 1 gram in his shoe. Second shoe, 1 gram on his</p> <p>22 foot, 1 gram in his shoe. That's 4 grams. And a</p> <p>23 teaspoon is 3.8 grams of talcum powder.</p> <p>24 Q So Mr. Eagles is already putting -- what's</p> <p>25 the purpose of putting baby powder in your shoes? 12:20:43</p> <p style="text-align: right;">Page 237</p>
<p>1 Q And I guess, to close out the last -- so 12:17:24</p> <p>2 is it your testimony that those two bottles of</p> <p>3 non-J&J talc that you tested, that those had been in</p> <p>4 Mr. Eagles' home since the 1990s?</p> <p>5 A I don't have any information one way or 12:17:42</p> <p>6 the other. I wasn't there to get them. Whatever</p> <p>7 they stated that they've been in their house for</p> <p>8 however long I guess is what it is.</p> <p>9 Q Okay. Well, I'm just saying, you said</p> <p>10 that you don't -- he stopped using the generic 12:17:58</p> <p>11 brands in 1990. Is that your testimony?</p> <p>12 MR. SATTERLEY: Objection.</p> <p>13 Mischaracterization of the prior testimony.</p> <p>14 THE WITNESS: I'm not saying he did or he</p> <p>15 didn't. It's not me saying it. That's the 12:18:09</p> <p>16 testimony I have. That's just an issue of fact. I</p> <p>17 wasn't there.</p> <p>18 BY MR. DUBIN:</p> <p>19 Q Okay. And so you also talk about the use</p> <p>20 in his shoes. And so he's putting talcum powder on 12:18:22</p> <p>21 his bare foot, then putting his sock on, and then</p> <p>22 putting talcum powder also in his shoes before</p> <p>23 putting the shoe on, right?</p> <p>24 A Right.</p> <p>25 Q Okay. And so it's -- you say using a 12:18:44</p> <p style="text-align: right;">Page 236</p>	<p>1 A He said to keep -- help keep them dry. 12:20:48</p> <p>2 What did he say about putting it in his</p> <p>3 shoes? I'd have to go back to the earlier because I</p> <p>4 just wanted to . . .</p> <p>5 Yeah. I apologize. I thought I had it in 12:22:51</p> <p>6 here, what he stated. But what I recall is to keep</p> <p>7 his feet dry. But --</p> <p>8 Q Is this a typical way of using talc powder</p> <p>9 on your feet, as you understand, putting it on your</p> <p>10 feet before you put them in the sock and then also 12:23:10</p> <p>11 putting talcum powder in the shoe, even when you're</p> <p>12 wearing a sock?</p> <p>13 A I don't know how common it is, but I've</p> <p>14 seen it a number of times in the past of individuals</p> <p>15 who used it for sports shoes, keep the feet dry, 12:23:26</p> <p>16 help them from smelling, help the shoes from</p> <p>17 getting -- from smelling, as a deodorant. So that's</p> <p>18 what I've seen in the past. I couldn't tell you</p> <p>19 what cases, but I've seen this in the past.</p> <p>20 Q Uh-huh. In your calculation, your 12:23:48</p> <p>21 cumulative use calculation, you do not include use</p> <p>22 on his children; is that right?</p> <p>23 A Yes. I did not include it.</p> <p>24 Q Why not?</p> <p>25 A Because I got from the testimony that he 12:24:14</p> <p style="text-align: right;">Page 238</p>

<p>1 very rarely did it. It was mostly his wife that 12:24:15</p> <p>2 changed the diapers.</p> <p>3 Q And do you recall any testimony from</p> <p>4 Mr. Eagles that what he was putting in -- the brand</p> <p>5 that he was putting in his shoes, that he would 12:24:39</p> <p>6 refer to it as talcum powder rather than baby</p> <p>7 powder?</p> <p>8 A I'm sorry. Could you ask that again?</p> <p>9 Q Do you recall him referring to the</p> <p>10 materials that he was putting in his shoe saying it 12:25:20</p> <p>11 would say "talcum powder" rather than "baby powder"?</p> <p>12 A I think he said it both ways. And she</p> <p>13 said it both ways. They would call it baby powder</p> <p>14 and they would call it -- I think I'm the one who is</p> <p>15 calling it talcum powder. 12:25:37</p> <p>16 Q But no question Johnson's baby powder</p> <p>17 would say "baby powder" on it, right?</p> <p>18 A No question about that.</p> <p>19 Q Now, you've done an estimate of the number</p> <p>20 of application and the amount of talc Mr. Eagles 12:25:57</p> <p>21 would have used. You have not done any cumulative</p> <p>22 dose analysis for the amount of asbestos that</p> <p>23 Mr. Eagles would have been exposed to, right?</p> <p>24 A Correct. I've not done any cumulative</p> <p>25 fiber years. 12:26:22</p> <p style="text-align: right;">Page 239</p>	<p>1 welding type particles in Mr. Eagles' tissue, would 12:28:15</p> <p>2 you have an opinion about what the likely source of</p> <p>3 that is?</p> <p>4 MR. SATTERLEY: Objection. Calls for</p> <p>5 speculation. 12:28:24</p> <p>6 THE WITNESS: What the source is? If your</p> <p>7 hypothetical is correct, that there is bona fide</p> <p>8 welding products in his lung, microscopic metal</p> <p>9 appears, then, yes, I would expect it would be from</p> <p>10 welding. 12:28:49</p> <p>11 BY MR. DUBIN:</p> <p>12 Q All right. Well, we've got only about an</p> <p>13 hour left with you today. So why don't we take our</p> <p>14 last break. We'll try to take a quick one. Let's</p> <p>15 make it a five-minute break to give people an 12:29:02</p> <p>16 opportunity to stretch, and then we'll go.</p> <p>17 A Okay. Thank you.</p> <p>18 Q No problem. Bye.</p> <p>19 THE VIDEOGRAPHER: Off the record.</p> <p>20 12:29 p.m. 12:29:16</p> <p>21 (Recess taken.)</p> <p>22 THE VIDEOGRAPHER: On the record.</p> <p>23 12:34 p.m.</p> <p>24 BY MR. DUBIN:</p> <p>25 Q All right, Dr. Longo, obviously we're not 12:34:19</p> <p style="text-align: right;">Page 241</p>
<p>1 Q And in order to do -- to take the number 12:26:24</p> <p>2 of applications and turn that into an asbestos dose,</p> <p>3 one of the things you would need to know is the</p> <p>4 intensity of any exposures to asbestos?</p> <p>5 A That's correct. 12:26:40</p> <p>6 Q We'll come back to dose if we have time.</p> <p>7 Did you see in the Abraham materials</p> <p>8 reference to welding type particles?</p> <p>9 A I don't recall seeing that. Let me see.</p> <p>10 Do I have his report? Yes. Someplace. 12:27:02</p> <p>11 I don't recall that. Well, I don't want</p> <p>12 to waste time looking for it. Do you want to point</p> <p>13 it out?</p> <p>14 Q Let me just ask you, are you familiar</p> <p>15 with -- what are welding type particles in a lung 12:27:36</p> <p>16 burden analysis or a tissue diagnosis analysis?</p> <p>17 A Welding type particles, if it's in fact</p> <p>18 welding type particles, would be metallic materials</p> <p>19 that is given off during the welding process because</p> <p>20 of the molten metal. And they're typically 12:27:53</p> <p>21 microscopic, would have some -- would have</p> <p>22 components of either the welding rod as well as</p> <p>23 whatever the metal is.</p> <p>24 Q To the extent that any of the expert --</p> <p>25 any of Plaintiffs' experts say that there were 12:28:12</p> <p style="text-align: right;">Page 240</p>	<p>1 going to finish today. I wanted to ask you some 12:34:24</p> <p>2 preliminary things about chrysotile, chrysotile</p> <p>3 identification, and then we may have to take up some</p> <p>4 other things about the facts of the case later.</p> <p>5 First, as I understand it, you testified 12:34:38</p> <p>6 before that you used some sort of software to assist</p> <p>7 in the calculation of refractive indices; is that</p> <p>8 right?</p> <p>9 A It didn't really -- yeah, it was software</p> <p>10 that we no longer use. It came with the -- it was 12:34:54</p> <p>11 given to us by a Dr. Bow, an NVLAP auditor. He's</p> <p>12 the one who told us that we should quit being an</p> <p>13 NVLAP, quit wasting our money. And it was</p> <p>14 essentially like a spreadsheet where you would put</p> <p>15 in what you're looking at and put in the matching 12:35:18</p> <p>16 wavelengths, and it would give you the refractive</p> <p>17 indices.</p> <p>18 Q So, just to be clear, when you were using</p> <p>19 that software, it didn't fully automate the process.</p> <p>20 The analyst still needs to identify what they're 12:35:37</p> <p>21 looking at?</p> <p>22 A Yeah. There was no automation to it.</p> <p>23 There was -- that's, I think, where the confusion</p> <p>24 was. You'd have to put in the matching wavelengths.</p> <p>25 And it is essentially the same thing as looking it 12:35:51</p> <p style="text-align: right;">Page 242</p>

<p>1 up on a -- you know, on a chart, such as Dr. Su's 12:35:54</p> <p>2 charts or others.</p> <p>3 Q And I think you would agree with me that</p> <p>4 that first step, the analyst properly describing the</p> <p>5 color that they're seeing so that it can be 12:36:06</p> <p>6 transferred into a wavelength, that's fundamental to</p> <p>7 PLM dispersion staining, correct?</p> <p>8 A Yes.</p> <p>9 Q And why are you no longer using the</p> <p>10 software? 12:36:22</p> <p>11 A Because we're now using 1.560 refractive</p> <p>12 indices fluid, and there was never a spreadsheet --</p> <p>13 didn't have the spreadsheet type information on it.</p> <p>14 And he also -- there's an update out there -- he</p> <p>15 says there's a -- I understand there may be an 12:36:35</p> <p>16 update that I haven't requested yet. So we've just</p> <p>17 gone back to looking at the -- looking at the charts</p> <p>18 ourselves.</p> <p>19 Q Are there published refractive indices</p> <p>20 ranges for Calidria chrysotile in 1.560? 12:36:53</p> <p>21 A I think it's all in 1.550. That's</p> <p>22 published -- the only published data I've seen is</p> <p>23 for the Coalinga that I can -- that I recall off the</p> <p>24 top of my head is Dr. Macron's. But his were all</p> <p>25 mine samples, not the processed material, my 12:37:23</p> <p style="text-align: right;">Page 243</p>	<p>1 A I'm with you. 12:39:19</p> <p>2 Q I just want to first just talk about what</p> <p>3 talc itself should look like in 1.550 oil. Okay.</p> <p>4 A Sure.</p> <p>5 Q And so this says for the RI parallel to 12:39:35</p> <p>6 the fiber lengths -- we're talking about parallel --</p> <p>7 talc fibers have a range of 1,589 to 1,600 resulting</p> <p>8 in a pale yellow dispersion color when immersed in</p> <p>9 1.550 RI liquid.</p> <p>10 First of all, is that correct? 12:40:00</p> <p>11 A Yeah. You can have a range like that.</p> <p>12 Sometimes a little bit lower. Sometimes higher.</p> <p>13 But that's -- I don't argue with that.</p> <p>14 Q But, typically, talc -- elongated talc in</p> <p>15 parallel should be a pale yellow, and the range they 12:40:14</p> <p>16 give here is 1,589 to 1,600, right?</p> <p>17 A That's what they give.</p> <p>18 (Exhibit 25 marked for identification.)</p> <p>19 BY MR. DUBIN:</p> <p>20 Q Okay. And just so we can see something 12:40:25</p> <p>21 about talc in general, not just talc fiber, I'll</p> <p>22 mark as the next exhibit in order, which will be 25,</p> <p>23 just the IARC 2010 monograph on talc. And if we</p> <p>24 could call that up and go to page 289.</p> <p>25 No. It should be 1.13. 12:41:11</p> <p style="text-align: right;">Page 245</p>
<p>1 understanding. 12:37:25</p> <p>2 Q And was that in 1.550 or 1.560?</p> <p>3 A I believe it was 1.550.</p> <p>4 Q And I want to ask you -- let's make the</p> <p>5 next in order -- what Exhibit are we on? Is that 12:37:47</p> <p>6 24?</p> <p>7 (Exhibit 24 marked for identification.)</p> <p>8 MR. KEESTER: That's right.</p> <p>9 MR. DUBIN: I'm going to make the next</p> <p>10 exhibit ISO 22262-1. If we can we call that up. Go 12:38:04</p> <p>11 to page 36. Scroll down a little bit.</p> <p>12 BY MR. DUBIN:</p> <p>13 Q I want to first talk about what talc looks</p> <p>14 like in 1.550.</p> <p>15 MR. SATTERLEY: Can you blow that up? 12:38:54</p> <p>16 It's very, very hard to read.</p> <p>17 MR. DUBIN: Blow up the part that says</p> <p>18 "talc fibers."</p> <p>19 THE WITNESS: What page is that on the --</p> <p>20 BY MR. DUBIN: 12:39:05</p> <p>21 Q 36. At least of the PDF.</p> <p>22 A Okay. Can we go down to the bottom?</p> <p>23 Q 28.</p> <p>24 A 28. Okay.</p> <p>25 Q You with me? 12:39:18</p> <p style="text-align: right;">Page 244</p>	<p>1 Okay. Here we go. Here, again, we're 12:41:23</p> <p>2 talking about the indices of refraction of talc.</p> <p>3 And it says biaxial with alpha 1.539 to 1.550, gamma</p> <p>4 1.589 to 1.594.</p> <p>5 And, again, so consistent -- what you're 12:41:40</p> <p>6 going to see from talc is generally -- in parallel</p> <p>7 is generally a pale yellow, right?</p> <p>8 A That's what it states.</p> <p>9 Q And talc plates, what is the typical</p> <p>10 refractive indices of a talc plate? 12:42:01</p> <p>11 A It's typically -- it's going to be the</p> <p>12 beta. And it's not going to change. It won't</p> <p>13 change when you turn it. If it's just the talc</p> <p>14 plate, you won't get any birefringence, but you're</p> <p>15 getting the same things. 12:42:22</p> <p>16 You know, it's one of the few things I</p> <p>17 agree with Dr. Sanchez, when he stated in his</p> <p>18 deposition he had in this case. And I -- but what</p> <p>19 you can see there is what we have been stating on</p> <p>20 talc. When you determine the birefringence 12:42:41</p> <p>21 calculation, you're up in the -- you know, the 0.05</p> <p>22 to 0.06 versus your chrysotile birefringence that</p> <p>23 are down in the low range.</p> <p>24 Q I just want to talk about what a talc</p> <p>25 plate should appear like in 1.550 oil. And this is 12:42:57</p> <p style="text-align: right;">Page 246</p>

<p>1 indicating that talc plate should be pale yellow, 12:43:03 2 right?</p> <p>3 A I'm not sure it states that anywhere 4 there.</p> <p>5 Q Okay. Well, what color -- you told me 12:43:20 6 that the talc --</p> <p>7 A You'll get yellows to gold. You know, you 8 have to define what pale yellow is. You can get 9 yellow-gold in 1.550. We've seen it not yellow-gold 10 at times, but depending -- you may have more of a 12:43:38 11 goldish-red. So it's not always the same range of 12 refractive indices. But one thing that is always 13 the same is the birefringence difference between 14 that and chrysotile.</p> <p>15 Q Okay. Well, I'm asking you just first 12:43:56 16 question: What is the refractive indices range for 17 a talc plate, just a plane talc plate?</p> <p>18 A If it's a plane talc plate and you're in 19 the top, the refractive free range is whatever the 20 beta is, there is no range. Because it's going to 12:44:14 21 give you the -- no matter what direction you turn it 22 in, it's going to give you the same thing.</p> <p>23 Q Okay. So there is no range. What is the 24 refractive index of a talc plate?</p> <p>25 A That one says 1.589 to 1.594. We 12:44:31 Page 247</p>	<p>1 that's my interpretation of it. It could be a 12:46:22 2 goldish -- a goldish color, a yellowish-goldish 3 color. So that's what I would -- that's what I 4 would state it is at times. A bright pale -- you 5 know, a pale yellow versus, you know, the 12:46:42 6 birefringence, you get a bright pale yellow versus a 7 more dull pale yellow for chrysotile. It just 8 depends, Mr. Dubin. You can't just give it a 9 universal this is what it's going to look like.</p> <p>10 Q Okay. Well, let's assume you're not 12:46:59 11 dealing with an elongated particle. You're using 12 PLM dispersion staining and you're identifying talc 13 plates. Is there -- are there published ranges for 14 what refractive index the talc plate should be in, 15 therefore what color they should appear in? 12:47:21</p> <p>16 A Probably.</p> <p>17 Q Okay. Have you ever seen one that says a 18 talc plate can in 1.550 oil can be golden yellow?</p> <p>19 A Typically, they don't say the colors a lot 20 of times. Like they're saying there the talc plate 12:47:43 21 on the beta direction can be anywhere from 1.589 to 22 1.594. You know, that's six points there. That can 23 be totally different color. I mean, not totally 24 different, but it can be different shades of 25 whatever you're using there for that. 12:48:02 Page 249</p>
<p>1 typically don't record the range of typical plates. 12:44:36 2 We're looking at what the fibrous talc is.</p> <p>3 Q Okay. But I'm just asking a talc plate. 4 What color should a talc plate appear to 5 be to the analyst's eye in 1.550 oil? 12:44:55</p> <p>6 A You're typically going to have some form 7 of yellow or goldish-yellow. Depends on the 8 instrument, I guess, and what -- what light source 9 you have. And it's going to be a particle.</p> <p>10 Q Let's assume you have a non-colored light 12:45:18 11 source. What color should a talc plate be in 1.550 12 oil?</p> <p>13 A You could have yellows. You could have 14 golds. I'm not sure I could say there is my any one 15 color. You know, one type of hue of yellow or 12:45:39 16 yellowish-gold. And then when you turn it into the 17 perpendicular direction, you get the exact same 18 thing.</p> <p>19 Q I'm talk -- okay. 20 What support do you have for the fact that 12:45:59 21 if an analyst looks through a microscope at a talc 22 plate in 1.550 with no colored light, that it can 23 appear gold, yellow-gold?</p> <p>24 A What -- I've seen a number -- you know, 25 I've seen it both on -- sitting at the microscope, 12:46:20 Page 248</p>	<p>1 Q Okay. I want to ask you about -- we'll 12:48:18 2 make it the next exhibit in order, the report by 3 Mr. Poye on Johnson & Johnson Shower to Shower, 4 which I think you've seen before. Let me just ask 5 you about an image. It's -- we'll make -- it's 12:48:37 6 Tab 46, and it will be Exhibit 25.</p> <p>7 MR. SATTERLEY: 25 was the IARC. So this 8 will be 26.</p> <p>9 MR. DUBIN: 26. Thank you. 10 Let's go to page 21. 12:49:00 11 (Exhibit 26 marked for identification.)</p> <p>12 BY MR. DUBIN:</p> <p>13 Q Just as an example here, we've got talc 14 here in 1.550 refractive index oil. Is that what 15 talc looks like in the microscope when immersed in 12:49:16 16 1.550 refractive index oil?</p> <p>17 A Sometimes.</p> <p>18 Q What do you mean by "sometimes"?</p> <p>19 A Sometimes it will look that. Sometimes it 20 will look different. Sometimes it's talc plates 12:49:33 21 versus fibrous talc. And depending on the 22 orientation. But for talc plates, I mean, you 23 change the orientation, it typically will stay the 24 same versus fibrous talc, if you have it parallel 25 versus perpendicular, you're getting your different 12:49:52 Page 250</p>

<p>1 refractive indices. 12:49:55</p> <p>2 Q So let me ask you, the image on the right,</p> <p>3 is that -- the talc plates you see there, is that</p> <p>4 the correct color of talc in 1.550 oil?</p> <p>5 A I don't -- again, there's no correct or 12:50:06</p> <p>6 incorrect. This is what this one happens to show.</p> <p>7 Q Well, the colors that are being produced</p> <p>8 by the mineral, how -- what is -- what is</p> <p>9 controlling what color is being shown?</p> <p>10 A The crystalline structure of the talc 12:50:23</p> <p>11 plates. And in the orientation, in this case, since</p> <p>12 it's a plate, laying flat, it's the beta directions.</p> <p>13 And the beta directions are usually pretty close to</p> <p>14 the gamma direction for the fibrous talc, as been</p> <p>15 stated in the last thing you showed and the thing 12:50:45</p> <p>16 before that. Not exact, but it's pretty close.</p> <p>17 Q Okay. Let's take the next in order -- I</p> <p>18 guess it's 26, just one of your Chinese samples.</p> <p>19 (Exhibit 27 marked for identification.)</p> <p>20 MR. SATTERLEY: You're now 27. 12:51:04</p> <p>21 MR. DUBIN: I'm at 27. Damn it. You're</p> <p>22 better at this than I am, obviously.</p> <p>23 MR. SATTERLEY: Just trying to keep them</p> <p>24 straight.</p> <p>25 MR. DUBIN: Thank you. Let's make that 12:51:14</p> <p style="text-align: right;">Page 251</p>	<p>1 lightbulb; is that right? 12:53:08</p> <p>2 A Well, it's a tungsten lightbulb which</p> <p>3 gives you sort of an orangish hue, sort of a more</p> <p>4 golden-yellow-orangish hue, yes.</p> <p>5 Q Okay. So tell me, what is different about 12:53:25</p> <p>6 the appearance in parallel of the chrysotile versus</p> <p>7 the talc plate?</p> <p>8 A Well, the chrysotile is fibrous. It's got</p> <p>9 an RI of 1.563. And then we see a fibrous talc</p> <p>10 along with it, and it's completely different. I 12:53:50</p> <p>11 mean -- and I'm not saying that talc flake debris</p> <p>12 doesn't have some chrysotile in it. But this type</p> <p>13 of microscope, it was too small to distinguish</p> <p>14 versus the one up at the 12:00 position and the one</p> <p>15 at the -- what do I say that is? -- about a 5:00 12:54:10</p> <p>16 position, 5:00 p.m., 5:00 a.m. position.</p> <p>17 Q Okay. Let's look at another image here at</p> <p>18 296, page 296. Let's rotate that.</p> <p>19 So, again, these larger rounded</p> <p>20 structures, those are talc plates, correct? 12:54:40</p> <p>21 A Correct.</p> <p>22 Q And we have a similar colors on the</p> <p>23 structure that you're calling chrysotile, right?</p> <p>24 A Similar to what?</p> <p>25 Q Similar to the talc plates. 12:55:00</p> <p style="text-align: right;">Page 253</p>
<p>1 one of your Chinese samples. Let's go to -- it's 12:51:16</p> <p>2 Tab 47. Call it up.</p> <p>3 MR. SATTERLEY: Can you tell me which</p> <p>4 report this is from?</p> <p>5 MR. DUBIN: It's from the September 16, 12:51:26</p> <p>6 2020 report. Let's go to page 68. Can we try to</p> <p>7 flip that image, rotate it.</p> <p>8 BY MR. DUBIN:</p> <p>9 Q So we're looking at an image from page 68</p> <p>10 of this. I just want to understand -- so there's a 12:51:51</p> <p>11 rounded structure up here that's near the talc flake</p> <p>12 debris. Is that a talc plate?</p> <p>13 A Yes. Talc flake/plate, same thing.</p> <p>14 Q Okay. And you're identify -- first of</p> <p>15 all, remind me again why your images are so much 12:52:17</p> <p>16 more golden than what we looked at for Mr. Poye's</p> <p>17 lab?</p> <p>18 A I don't know what type of scope Mr. Poye's</p> <p>19 lab is using. This one -- this was the Olympus with</p> <p>20 the tungsten filament light, which gives you the 12:52:41</p> <p>21 kind of what you say is more golden on the yellows</p> <p>22 and golds.</p> <p>23 Q Okay. And so, just to be clear, so on</p> <p>24 this microscope that you're using to do PLM</p> <p>25 dispersion analysis based on color, you had a color 12:53:03</p> <p style="text-align: right;">Page 252</p>	<p>1 A There are some areas, but they're not -- 12:55:04</p> <p>2 they're just plates. They're not fibrous. So we</p> <p>3 have chrysotile.</p> <p>4 Q Okay. And you know, there -- on a lot of</p> <p>5 these particles, including the talc plates, you can 12:55:19</p> <p>6 see some red. Let's focus on the tile plates. You</p> <p>7 can see some red around the edge of the tile plates.</p> <p>8 What's that?</p> <p>9 A That's the talc plate. There may be some</p> <p>10 chrysotile in there, but this microscope -- this PLM 12:55:34</p> <p>11 microscope does not have the resolution, so it's a</p> <p>12 talc plate. I believe if you'll show this in</p> <p>13 perpendicular, you can see the difference in some of</p> <p>14 these where you may have in fact fibrous talc</p> <p>15 associated with the talc plate or potentially 12:55:52</p> <p>16 fibrous chrysotile. But it's too small to get, you</p> <p>17 know, dispersion staining on.</p> <p>18 Q I'm just trying to figure out the edges.</p> <p>19 You see it on essentially all of the talc plates,</p> <p>20 right, this red around the edge? Do you see that, 12:56:10</p> <p>21 purplish-red or red around the edge of the talc</p> <p>22 plates?</p> <p>23 A Yes.</p> <p>24 Q Does that mean that -- what -- then what</p> <p>25 is the refractive index of these talc plates, would 12:56:28</p> <p style="text-align: right;">Page 254</p>

<p>1 you say? 12:56:34</p> <p>2 A I would say these talc plates are maybe</p> <p>3 1.565 or 64 and then 1.550. Because you're getting</p> <p>4 more of the red, where the chrysotile has more of</p> <p>5 the golden yellow, 67 to 70. 12:57:00</p> <p>6 Q So, if you were asked -- just to identify</p> <p>7 what mineral this talc plate is, let's take the one</p> <p>8 that's largest. So, if we go up to the left of the</p> <p>9 particle. So it's -- you would -- just so I'm</p> <p>10 clear, what refractive index would you report based 12:57:27</p> <p>11 on what you're observing for that particle?</p> <p>12 A Which one?</p> <p>13 Q You know, the one that looks more like a</p> <p>14 thumbprint. It's -- yeah, the one the cursor just</p> <p>15 went over. 12:57:42</p> <p>16 A I don't know. I'd probably want to take</p> <p>17 some other particles of similar matching wavelengths</p> <p>18 versus what we have there. I probably would first</p> <p>19 start and look at the elongation with the box</p> <p>20 30-nanometer filter, because talc plates don't show 12:58:02</p> <p>21 up.</p> <p>22 So I don't know what I would call that at</p> <p>23 this moment. I might want to do some more work on</p> <p>24 it.</p> <p>25 Q Well, what color would you say -- again, 12:58:14</p> <p style="text-align: right;">Page 255</p>	<p>1 because we have better resolution. Here we have -- 12:59:33</p> <p>2 every particle has some of the red around it. And I</p> <p>3 don't know if that's just an artifact or not. But</p> <p>4 I'm just -- you asked me, and I'm telling you.</p> <p>5 Q Okay. I understand. So but your view -- 12:59:49</p> <p>6 the red -- you agree the red on these pictures may</p> <p>7 be an artifact, right?</p> <p>8 A Maybe. I don't know. I'd have to focus</p> <p>9 in on it to see if we -- you know, the focus is off,</p> <p>10 et cetera. So I'm giving you my best estimate based 01:00:04</p> <p>11 on the photograph.</p> <p>12 Q Okay. And so at some point you changed</p> <p>13 microscope, as I understand it, and no longer have</p> <p>14 the tungsten lightbulb, right?</p> <p>15 A It's LED. 01:00:24</p> <p>16 Q Now, I want to ask you about -- so before</p> <p>17 you changed, did you have various different PLMs</p> <p>18 before that, some of which had tungsten lightbulbs,</p> <p>19 some of which didn't, or did they all have a</p> <p>20 tungsten lightbulb? 01:00:44</p> <p>21 A We had 3D exact same microscope.</p> <p>22 Q Okay. All with the tungsten lightbulb?</p> <p>23 A Older -- old PLM microscopes.</p> <p>24 Q Okay. So I want to mark next, which,</p> <p>25 unless Joe corrects me again, will be 28. 01:00:59</p> <p style="text-align: right;">Page 257</p>
<p>1 you can identify any talc plates. We can take the 12:58:16</p> <p>2 one that's up slightly to the right of the one you</p> <p>3 just called chrysotile. What color would you call</p> <p>4 that for purposes of determining its refractive</p> <p>5 index? 12:58:28</p> <p>6 A That would be somewhere in the 1.563 to</p> <p>7 1.566, 67. Somewhere around there.</p> <p>8 Q Remind me what color that corresponds to.</p> <p>9 A What you see there.</p> <p>10 Q So are you calling it red? Are you 12:58:43</p> <p>11 calling it golden yellow? What color are you</p> <p>12 calling it? I want to know what you see in that</p> <p>13 particle.</p> <p>14 A I see sort of a goldish-yellow and some</p> <p>15 red on the outside. I don't -- typically, you want 12:58:59</p> <p>16 to take the very end, but this is a particle plate,</p> <p>17 since it's not fibrous. And we do have some single</p> <p>18 fibers in there, but they're too small to really</p> <p>19 resolve. And that's what I would call it, based on</p> <p>20 just that photograph. 12:59:19</p> <p>21 Q So I'm just saying, I think one of the</p> <p>22 things you told me before is that when you do this</p> <p>23 analysis, you're basing it on what color it is at</p> <p>24 the edge of the particle, right?</p> <p>25 A With our new microscope, yes, we are, 12:59:31</p> <p style="text-align: right;">Page 256</p>	<p>1 MR. SATTERLEY: That's a correct number 01:01:04</p> <p>2 this time.</p> <p>3 MR. DUBIN: Well, even a broken clock is</p> <p>4 right twice a day.</p> <p>5 (Exhibit 28 marked for identification.) 01:01:10</p> <p>6 BY MR. DUBIN:</p> <p>7 Q A report you did for MAS for -- about an</p> <p>8 RT Vanderbilt product around the time when the</p> <p>9 chrysotile findings were coming out in Johnson &</p> <p>10 Johnson. So it's Tab 20. 01:01:23</p> <p>11 MR. SATTERLEY: 28?</p> <p>12 MR. DUBIN: Sorry. It's Tab 20. It will</p> <p>13 be Exhibit 28. I'm just telling Jake what tab it</p> <p>14 is.</p> <p>15 MR. SATTERLEY: We don't have the tab 01:01:39</p> <p>16 notebook, so we can't follow along.</p> <p>17 MR. DUBIN: Yeah, I know that.</p> <p>18 BY MR. DUBIN:</p> <p>19 Q So do you have any memory of this, Foushee</p> <p>20 versus RT Vanderbilt Holding Company? Not that you 01:01:46</p> <p>21 have to remember. I'm just curious.</p> <p>22 MR. SATTERLEY: I can't see the top.</p> <p>23 BY MR. DUBIN:</p> <p>24 Q Do you recall anything about this?</p> <p>25 A Not really. But I'm sure if we go through 01:01:58</p> <p style="text-align: right;">Page 258</p>

<p>1 it, it will refresh my memory. 01:02:01</p> <p>2 Q All right. For today, I just want to look</p> <p>3 at one image. So if we can go to page 22.</p> <p>4 Here is a picture from your PLM lab of</p> <p>5 what's identified -- being identified as a talc 01:02:22</p> <p>6 fiber bundle.</p> <p>7 And first, do you notice that we don't</p> <p>8 have as much of the golden yellow color that we saw</p> <p>9 in the Johnson & Johnson pictures with respect to</p> <p>10 the talc? 01:02:42</p> <p>11 A Yes.</p> <p>12 Q Do you know, why would that be if you were</p> <p>13 also using a tungsten lightbulb for this analysis?</p> <p>14 A This, as I understand it, is from a</p> <p>15 different mine, Vanderbilt mine. So you're going to 01:03:00</p> <p>16 have probably -- I don't think there is any iron.</p> <p>17 So you'll see different -- different materials and</p> <p>18 different wavelengths -- I mean, different -- you'll</p> <p>19 see different matching -- matching wavelengths to</p> <p>20 different sources. 01:03:22</p> <p>21 Q Well, why are all of the other yellow</p> <p>22 things here -- why aren't they also -- why haven't</p> <p>23 they turned orange if it's your light that was</p> <p>24 causing the problem?</p> <p>25 A You just asked why it was more gold. 01:03:39</p> <p style="text-align: right;">Page 259</p>	<p>1 still provides the same -- if that is in fact 01:05:29</p> <p>2 happening, then it gives you sort of a balance that</p> <p>3 it's going to be something different between the</p> <p>4 two.</p> <p>5 Q Right. What is -- 01:05:39</p> <p>6 A Normally it --</p> <p>7 Q But, for example, here where we see that</p> <p>8 the leaves are blue in one, you know, and the owl is</p> <p>9 blue, you know, if we want to figure out what your</p> <p>10 older images look like to the microscopist, if 01:05:52</p> <p>11 there's a yellow light, then we have to adjust in</p> <p>12 our minds both the color of the talc plates and the</p> <p>13 color of what you're calling chrysotile, right?</p> <p>14 A No. I don't agree with that at all. You</p> <p>15 just -- whatever reason you want to make the colors 01:06:09</p> <p>16 of the talc plates, we're looking at the dispersion</p> <p>17 staining for both parallel and perpendicular ranges</p> <p>18 and see how it matches up with what we feel is --</p> <p>19 what our opinion is chrysotile in these products.</p> <p>20 So whatever you want to do, that's fine, 01:06:29</p> <p>21 or whatever your experts want to do, that's fine.</p> <p>22 But that's not something we have to do.</p> <p>23 Q Well, I'm just asking you, if you're -- so</p> <p>24 whenever you -- before your Valadez report, whenever</p> <p>25 you were presenting images of what you claim was 01:06:44</p> <p style="text-align: right;">Page 261</p>
<p>1 Well, those particular plates -- 01:03:41</p> <p>2 Q Well, you have a lot of yellow here.</p> <p>3 A -- that too would have the -- tend to</p> <p>4 produce those colors. Why is the Vanderbilt</p> <p>5 different? I don't know. I haven't really thought 01:03:51</p> <p>6 about it.</p> <p>7 Q Okay. Will you agree -- let's -- this is</p> <p>8 a graphic I've asked you about before. I'll just</p> <p>9 make it next in order and ask you about it. It will</p> <p>10 be 29. It's just a PowerPoint. And it's Tab 75. 01:04:16</p> <p>11 (Exhibit 29 marked for identification.)</p> <p>12 MR. DUBIN: All right. So --</p> <p>13 MR. SATTERLEY: Is that the same one you</p> <p>14 used in the Valadez case?</p> <p>15 MR. DUBIN: Correct. 01:04:47</p> <p>16 BY MR. DUBIN:</p> <p>17 Q I want to talk about the effect of --</p> <p>18 let's assume that the old images are impacted by a</p> <p>19 tungsten lightbulb and they're yellower for that.</p> <p>20 That would mean that if the talc plates are oranger 01:04:59</p> <p>21 than they should be because of the light, then that</p> <p>22 would also apply to what you're calling chrysotile</p> <p>23 in the image, right? It's not selective.</p> <p>24 A I don't know if it's selective or not,</p> <p>25 depending on the dispersion from talc plates, but it 01:05:21</p> <p style="text-align: right;">Page 260</p>	<p>1 chrysotile in Johnson & Johnson, the images have 01:06:49</p> <p>2 been taken on a microscope with a yellow light,</p> <p>3 right?</p> <p>4 A It has had a tungsten light that produces</p> <p>5 more yellow vibrational wavelengths, right. 01:07:01</p> <p>6 Q And is there any reason why that tungsten</p> <p>7 light would only selectively make the talc plates</p> <p>8 more yellow -- more orange or golden than what you</p> <p>9 were calling chrysotile?</p> <p>10 A Well, it's primarily the talc plates from 01:07:21</p> <p>11 China. I'm not sure about the other ones.</p> <p>12 But again, we're calculating it on the</p> <p>13 birefringence, not how yellow one is the other and</p> <p>14 making a comparison. We have a number of</p> <p>15 chrysotile/talc inner growths from those same 01:07:39</p> <p>16 microscopes where you can easily, easily see the</p> <p>17 difference in the birefringence. So I just disagree</p> <p>18 with this whole line of questioning that somehow</p> <p>19 it's causing some artifact where it's not making it</p> <p>20 be chrysotile as we're calling it. 01:07:56</p> <p>21 Q Let me -- I'm going to skip ahead, and</p> <p>22 I'll come back to some of these other things.</p> <p>23 Let me just make sure I understand.</p> <p>24 So we talked about this particle before.</p> <p>25 I'll make the next exhibit in order the -- your 01:08:18</p> <p style="text-align: right;">Page 262</p>

<p>1 Valadez report. 01:08:23</p> <p>2 MR. DUBIN: And, Jake, that's Tab 55, if</p> <p>3 we want to call it out.</p> <p>4 MR. SATTERLEY: Exhibit 30?</p> <p>5 MR. DUBIN: That will be Exhibit 30. 01:08:36</p> <p>6 (Exhibit 30 marked for identification.)</p> <p>7 MR. DUBIN: And, if we can go to page 32.</p> <p>8 Sorry. Is this the Valadez report, Jake,</p> <p>9 Tab 55? And then page 32? It should have images.</p> <p>10 MR. KEESTER: Is it this one? 01:09:23</p> <p>11 MR. DUBIN: Yeah. Let's rotate it.</p> <p>12 BY MR. DUBIN:</p> <p>13 Q So I asked you about this particle before,</p> <p>14 and I think you -- well, let me just ask you. What</p> <p>15 color were you calling this? 01:09:46</p> <p>16 A A brownish-gold I guess. More on the</p> <p>17 brownish side, brownish-gold, which what we're</p> <p>18 seeing in the 1.560.</p> <p>19 Q So this is M71614-001CSM-001 chrysotile.</p> <p>20 Okay? 01:10:04</p> <p>21 MR. DUBIN: And let's go to page 37 above</p> <p>22 this. Scroll down because it should have the</p> <p>23 correct image. Let's go down. Okay. Let's flip</p> <p>24 that. Scroll that down.</p> <p>25 ///</p> <p style="text-align: right;">Page 263</p>	<p>1 are -- they've got a darker brown. But this is not 01:12:31</p> <p>2 the only thing -- this is not the -- the only thing</p> <p>3 we're using to identify this, one that has to be</p> <p>4 fibrous. If you go to the elongation where we have</p> <p>5 it in the 530-nanometer, you can get a better look 01:12:47</p> <p>6 at the structure of this as compared to everything</p> <p>7 else. And typically, talc plates don't show up very</p> <p>8 well in the one -- in the elongation, you know, in</p> <p>9 this -- in the single polar elongation, our</p> <p>10 cross-polars at the -- essentially at the 45-degree 01:13:12</p> <p>11 angle. You kind of focused in here, but this is not</p> <p>12 the only data that we use to make an identification.</p> <p>13 Q Okay. We'll get back to that. I guess --</p> <p>14 let me just back up for a second.</p> <p>15 Has your laboratory -- prior to your 01:13:38</p> <p>16 becoming involved in talc litigation, has your</p> <p>17 laboratory done any PLM work for Calidria?</p> <p>18 THE REPORTER: For what?</p> <p>19 MR. DUBIN: Calidria, C-A-L-I-D-R-I-A.</p> <p>20 We can take this down, Jake? 01:14:05</p> <p>21 THE WITNESS: The only one we've done</p> <p>22 would have been the -- some kind of -- you know,</p> <p>23 some exposure studies with Calidria. And I think it</p> <p>24 was the RG144 that was purchased by the plaintiff's</p> <p>25 attorney sometime -- no, that was -- strike that. 01:14:27</p> <p style="text-align: right;">Page 265</p>
<p>1 BY MR. DUBIN: 01:10:35</p> <p>2 Q And we're looking at M71614-001-CSM-002.</p> <p>3 What color are you observing in that structure?</p> <p>4 What color are you calling it for purposes of the</p> <p>5 RI? 01:10:49</p> <p>6 A For the brownish part there, sort of a</p> <p>7 brownish-gold I would call it. Let's see. 1.565.</p> <p>8 That's pretty close to what I would say it is.</p> <p>9 Q Okay. And if we go to page 42.</p> <p>10 And, if we go to page 42 and scroll down. 01:11:16</p> <p>11 Let's flip that. What color are you observing here</p> <p>12 for purposes of the RI calculation?</p> <p>13 A That's higher -- that's a lower -- that's</p> <p>14 a lower wavelength than what we've been looking at,</p> <p>15 but it's going to be a higher refractive indices. 01:11:43</p> <p>16 So I would probably call that -- I might get closer</p> <p>17 to 1.570 than 1.568. You do have some red in there</p> <p>18 around the edge that I don't see in some of the</p> <p>19 other particulates. So I would call it a little bit</p> <p>20 lower. Primarily, what you're seeing is yellow, 01:12:07</p> <p>21 yellow-gold.</p> <p>22 Q Okay. And how is that the color that's</p> <p>23 distinct in your mind from the talc plates that</p> <p>24 we're observing on this image?</p> <p>25 A Well, I would say most of the talc plates 01:12:28</p> <p style="text-align: right;">Page 264</p>	<p>1 With RG144 or 145 when Mr. Hatfield wrote 01:14:30</p> <p>2 to -- not to Union Carbide, but to -- I think it was</p> <p>3 RCAC or something like that who bought it out. We</p> <p>4 got 5 pounds of material. I'm not sure we did any</p> <p>5 PLM on it until we got involved in this, when we 01:14:51</p> <p>6 thought it might be a -- might be a -- because of</p> <p>7 the sharp fibers, might be sort of a standard.</p> <p>8 BY MR. DUBIN:</p> <p>9 Q Do you know what Visbestos or Super</p> <p>10 Visbestos are? 01:15:04</p> <p>11 A Super Asbestos?</p> <p>12 Q Super Visbestos or Visbestos?</p> <p>13 A I'm not sure.</p> <p>14 Q You don't recognize it as the name of a</p> <p>15 drilling mod that was composed of Calidria asbestos? 01:15:23</p> <p>16 A Oh, we've analyzed that in the past.</p> <p>17 Q So let's just mark that as the next in</p> <p>18 order. I guess that's 31.</p> <p>19 MR. SATTERLEY: What did you call it</p> <p>20 Visbestos? 01:15:38</p> <p>21 MR. DUBIN: V-I-S-B-E-S-T-O-S.</p> <p>22 THE WITNESS: Oh, I misunderstood. I</p> <p>23 thought you were calling it "super-asbestos."</p> <p>24 (Exhibit 31 marked for identification.)</p> <p>25 ///</p> <p style="text-align: right;">Page 266</p>

<p>1 BY MR. DUBIN: 01:15:49</p> <p>2 Q It's Super Visbestos or Visbestos.</p> <p>3 A I would have recognized Visbestos.</p> <p>4 Q Okay. And you can see here, this is from</p> <p>5 Union Carbide -- they're being referred to as Union 01:15:59</p> <p>6 Carbide Calidria samples, MAS, January 2011, right?</p> <p>7 A That's correct.</p> <p>8 Q Okay. And if we can go to page 6, we can</p> <p>9 see that there's an analyst. And that's somebody</p> <p>10 who did PLM analysis at MAS, correct? 01:16:26</p> <p>11 A Correct.</p> <p>12 Q And you see here that they -- he gives a</p> <p>13 refractive index of -- for Calidria of 1.560/1.553,</p> <p>14 correct?</p> <p>15 A Correct. 01:16:51</p> <p>16 Q Okay. And so what colors would that be in</p> <p>17 parallel and perpendicular?</p> <p>18 A In 1.550, 1.560 is going to be where the</p> <p>19 golden color should be. And 1.553 in the -- which</p> <p>20 is alpha is -- should be more in the bluish-purple 01:17:21</p> <p>21 range.</p> <p>22 Q Maybe we can look at the 1.560 range.</p> <p>23 Let's make sure we have that. So just the other</p> <p>24 numbers here. Look at page 7. There's other</p> <p>25 numbers here. You have 1.560 to 1.553, right? 01:17:44</p> <p style="text-align: right;">Page 267</p>	<p>1 BY MR. DUBIN: 01:19:20</p> <p>2 Q Okay. So you're telling me, if we look at</p> <p>3 the Su charts for your temperature in that oil, that</p> <p>4 1.560 is going to be golden yellow?</p> <p>5 A More of a dark gold. Not so much the 01:19:35</p> <p>6 yellow. You've got to get to higher refractive</p> <p>7 indices to start seeing it. And again, this is for</p> <p>8 1866b chrysotile. This has -- this has absolutely</p> <p>9 nothing to do with the short-fiber type materials.</p> <p>10 This is very misleading, Mr. Dubin. I'm sorry. I 01:19:56</p> <p>11 don't mean to be disrespectful, but this has nothing</p> <p>12 to do with what we're seeing.</p> <p>13 Q Okay. I don't understand what you're</p> <p>14 talking about.</p> <p>15 So Calidria is a short fiber chrysotile, 01:20:09</p> <p>16 right?</p> <p>17 A Calidria is a short fiber chrysotile, but</p> <p>18 we see -- you're going to see, because of the size</p> <p>19 of the fiber -- and I know -- I know Dr. Sanchez</p> <p>20 disagrees with this. The size of these bundles, I 01:20:26</p> <p>21 to 2 microns in width, give you different refractive</p> <p>22 indices for the colors. And we showed that with our</p> <p>23 1866b milled material. And it's been my opinion all</p> <p>24 along is that the, quote, the height of the bundle</p> <p>25 changes the refractive indices. Also, the source of 01:20:53</p> <p style="text-align: right;">Page 269</p>
<p>1 A Correct. 01:17:50</p> <p>2 Q So I'm going to mark the next exhibit in</p> <p>3 order 32. And that will be some slides, internal</p> <p>4 reference 53.</p> <p>5 MR. SATTERLEY: That last one, Exhibit 31, 01:18:00</p> <p>6 did you include entirety of the report as that</p> <p>7 exhibit?</p> <p>8 MR. DUBIN: Yeah, I included the whole</p> <p>9 report.</p> <p>10 MR. SATTERLEY: Thank you. 01:18:13</p> <p>11 (Exhibit 32 marked for identification.)</p> <p>12 BY MR. DUBIN:</p> <p>13 Q Okay. Now, we've done this chart before,</p> <p>14 so I thought -- so 1.560, what color is that at the</p> <p>15 temperature in your lab in 1.550 oil? 01:18:32</p> <p>16 MR. SATTERLEY: I'm confused, Morty.</p> <p>17 You've got the top 1.550 there, but then the</p> <p>18 refractory index in the report says 1.560 and 1.553.</p> <p>19 So I'm confused.</p> <p>20 MR. DUBIN: Yeah. One is the oil. The 01:18:55</p> <p>21 other is the reported refractive index.</p> <p>22 THE WITNESS: What we're seeing for what</p> <p>23 we have here, 1.560, those are typically in the</p> <p>24 golden -- darker gold area.</p> <p>25 ////</p> <p style="text-align: right;">Page 268</p>	<p>1 the bundle. 01:20:58</p> <p>2 So you're using 1866b here and calling it</p> <p>3 "Super Visbestos Testing Report." That's totally</p> <p>4 misleading.</p> <p>5 Q I'm sorry. I'm using what? It is a 01:21:08</p> <p>6 Visbestos testing report.</p> <p>7 A But these levels you're taking from the</p> <p>8 ISO 22262-1, and they're using the 1866b chrysotile</p> <p>9 standard to generate this.</p> <p>10 Q No, no, no. 01:21:27</p> <p>11 But, Dr. Longo, the only part of this that</p> <p>12 has to do with ISO is where the ISO ranges are on</p> <p>13 the bottom. I'm just asking you, is it correct that</p> <p>14 1.560 in your -- in your lab temperature would be</p> <p>15 around here, this 1.561 mark, that color? 01:21:46</p> <p>16 A No.</p> <p>17 Q Okay. All right. So we're going to have</p> <p>18 to go through this, I guess, next time. And I'll</p> <p>19 just mark the -- Su's 22 as the next in order. So</p> <p>20 that's -- that will be 33. 01:22:07</p> <p>21 MR. SATTERLEY: What are you marking?</p> <p>22 What you just showed him is --</p> <p>23 MR. DUBIN: Su's article, "The Dispersion</p> <p>24 Staining Technique and its Applications."</p> <p>25 MR. SATTERLEY: Did you mark that chart 01:22:16</p> <p style="text-align: right;">Page 270</p>

<p>1 there as Exhibit 32? 01:22:17</p> <p>2 MR. DUBIN: Sorry. I thought that -- the</p> <p>3 graphics?</p> <p>4 MR. SATTERLEY: Yeah, the graphic.</p> <p>5 MR. DUBIN: I'll make those 33. I'll make 01:22:24</p> <p>6 the actual Su 34. Okay. We'll just mark that. I</p> <p>7 don't need to look at it today, but we're going to</p> <p>8 have to go through this to confirm what color you're</p> <p>9 calling things.</p> <p>10 But let's go back to the 33 for -- let's 01:22:39</p> <p>11 call that back up for a second.</p> <p>12 (Exhibit 33 marked for identification.)</p> <p>13 (Exhibit 34 marked for identification.)</p> <p>14 MR. SATTERLEY: I'm confused, Morty.</p> <p>15 Exhibit 34 is -- what is it for Dr. Su? 01:22:45</p> <p>16 MR. DUBIN: It includes the Su tables. I</p> <p>17 think Dr. Longo understands we're going to go have</p> <p>18 to go through this because he's telling me different</p> <p>19 colors than I would expect him to.</p> <p>20 MR. SATTERLEY: I'm still not clear what 01:23:00</p> <p>21 you marked as 34.</p> <p>22 MR. DUBIN: 34 is the actual tables that</p> <p>23 you used in order to get the colors out of the</p> <p>24 refractive index that's reported by MAS.</p> <p>25 MR. SATTERLEY: Since you're not sharing 01:23:16</p> <p style="text-align: right;">Page 271</p>	<p>1 Q So I just want to understand, because for 01:24:52</p> <p>2 a long time now you've been saying that the reason</p> <p>3 why your -- the talc may be showing different -- the</p> <p>4 chrysotile in the talc may be showing different</p> <p>5 colors is because it's a Calidria type chrysotile. 01:25:07</p> <p>6 Are you now saying that it doesn't look</p> <p>7 like Calidria either?</p> <p>8 A No. I'm not saying that. I'd have to --</p> <p>9 you know, this was done a while ago. I'd have to go</p> <p>10 back and take a look at that. I don't know if we 01:25:24</p> <p>11 have the temperature on there or not at that time.</p> <p>12 You know, where this was being done versus the PLM</p> <p>13 lab, you know, this is -- I haven't seen this for a</p> <p>14 long time.</p> <p>15 Q Okay. 01:25:41</p> <p>16 A 1.560, the Calidria, if it's going to have</p> <p>17 the magenta color, I don't know if we still -- we</p> <p>18 don't have these samples anymore because Union</p> <p>19 Carbide wanted them back right away, or what else</p> <p>20 might be in there. So I'm at a disadvantage to try 01:26:00</p> <p>21 to go back to a report and see what was done. I</p> <p>22 don't know what the parallel, perpendicular</p> <p>23 materials are. You know, I still stick to our SG210</p> <p>24 versus what this is.</p> <p>25 Q Okay. First, we'll request any additional 01:26:22</p> <p style="text-align: right;">Page 273</p>
<p>1 it with me and it's not being displayed, what is it? 01:23:17</p> <p>2 Is it an article? Is it Dr. Su's article?</p> <p>3 MR. DUBIN: Right. It's Dr. Su's article.</p> <p>4 I'm just putting it in the record so he has it.</p> <p>5 MR. SATTERLEY: From 2020? 01:23:26</p> <p>6 MR. DUBIN: This is 2022.</p> <p>7 MR. SATTERLEY: 2022. Thank you.</p> <p>8 MR. DUBIN: I just put it in there so</p> <p>9 nobody had to search around for it.</p> <p>10 BY MR. DUBIN: 01:23:34</p> <p>11 Q And then, if we go to the next slide here.</p> <p>12 So -- and, again, for the perpendicular, do you know</p> <p>13 what color 1.553 would correspond to in your lab</p> <p>14 temperature?</p> <p>15 A 1.553 are down in that range. Is that 01:23:55</p> <p>16 what you found there, 1.553? It's a purplish-blue.</p> <p>17 It's usually pretty close to what the 1866b is.</p> <p>18 Q Okay. If we go up one more. Go back up</p> <p>19 one more slide back to the -- so are you now -- do</p> <p>20 you now agree that 1.560 is going to be in this 01:24:16</p> <p>21 range that we have circled here?</p> <p>22 A Well, just take the number, yes, 1.561 to</p> <p>23 1.58 isn't going to be showing the, quote, magenta.</p> <p>24 Not for this size it won't. I would say of the --</p> <p>25 what we have in the 1.563 to 1.565. 01:24:40</p> <p style="text-align: right;">Page 272</p>	<p>1 information you have in your files about this 01:26:24</p> <p>2 project, including any PLM images.</p> <p>3 And let me ask you. You said that --</p> <p>4 MR. SATTERLEY: Let me place an objection.</p> <p>5 THE WITNESS: Can you increase the 01:26:33</p> <p>6 magnification a little bit so I can -- this is so</p> <p>7 long ago, I'd like to get the image.</p> <p>8 MR. DUBIN: The whole report will be an</p> <p>9 exhibit.</p> <p>10 MR. SATTERLEY: Let me object to your 01:26:41</p> <p>11 demanding that Dr. Longo go do some research and</p> <p>12 produce items for you.</p> <p>13 MR. DUBIN: Okay. So, Joe, just so I</p> <p>14 understand your position. So, if you're asking our</p> <p>15 experts to go find anything in their files, that's 01:26:54</p> <p>16 not appropriate, right?</p> <p>17 MR. SATTERLEY: I'm objecting to your</p> <p>18 demand of Dr. Longo to go search files from 12 years</p> <p>19 ago to try to find something for you.</p> <p>20 BY MR. DUBIN: 01:27:07</p> <p>21 Q Okay. Well, if it -- I think this has a</p> <p>22 project number. You can look things up by project</p> <p>23 number, correct?</p> <p>24 A Again, I still can't see it.</p> <p>25 Q Okay. Well, we can go to the full report 01:27:19</p> <p style="text-align: right;">Page 274</p>

1 if we need to. We already marked that. It was 01:27:20
2 Exhibit 32.
3 So you see it has project numbers?
4 A M62609. Did I get that correct?
5 Q 52609. 01:27:34
6 A 52609. Okay.
7 Q Okay. And that's something that's
8 searchable at MAS, right?
9 A Yes.
10 Q Okay. And you said you don't have the 01:27:43
11 samples because Union Carbide demanded them back.
12 So did you get these directly from Union
13 Carbide?
14 A Yes. I think Chatfield or somebody
15 brought it in. These were not materials that we 01:28:03
16 had.
17 Q Are you talking about the --
18 A I'd have to look at the whole report. You
19 know, we're talking, what, 10, 12, 13 years ago --
20 12 years ago. I'd have to look at the report. But 01:28:16
21 I don't think we were able to keep these as -- as
22 samples.
23 Q Did MAS ever take the NIST proficiency
24 testing that related to Calidria?
25 A Yeah, you've asked that a few times. I 01:28:37
Page 275

1 don't know. I don't think -- I looked up for it 01:28:40
2 once and was -- and couldn't find it, so I don't
3 know.
4 Q Okay. Have you --
5 A If you looked through your FOIA -- FOIA 01:28:52
6 demand from NVLAP. And if it wasn't in there, I
7 don't know where it is.
8 Q Okay. So have you seen the 2000 -- have
9 you seen the NIST proficiency test, the summaries,
10 for Calidria? 01:29:14
11 A I haven't seen what they stated. I saw
12 what Chatfield stated, that, you know, a number of
13 labs failed.
14 Q Okay. Well, we're out of time. Maybe
15 we'll start there next time. Okay. It's 1:30, I 01:29:33
16 guess.
17 A All right. Have a good afternoon,
18 Mr. Dubin.
19 THE VIDEOGRAPHER: Off the record,
20 1:29 p.m. This concludes today's testimony given by 01:29:42
21 William Longo, Ph.D. Total number of media units
22 used was three and will be retained by Veritext
23 Legal Solutions.
24 (TIME NOTED: 1:29 P.M.)
25
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1 DECLARATION UNDER PENALTY OF PERJURY
2
3 I, WILLIAM LONGO, Ph.D., the witness herein, declare
4 under penalty of perjury that I have read the foregoing in
5 its entirety; and that the testimony contained therein, as
6 corrected by me, is a true and accurate transcription of
7 my testimony elicited at said time and place.
8
9 Executed this ____ day of _____ 2023, at
10 _____,
11 (City) (State)
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17 WILLIAM LONGO, Ph.D.
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1 REPORTER'S CERTIFICATION
2
3 I, Leslie Johnson, a Certified Shorthand
4 Reporter of the State of California, do hereby certify:
5 That the foregoing proceedings were taken
6 before me at the time and place herein set forth; that
7 any witnesses in the foregoing proceedings, prior to
8 testifying, were administered an oath; that a record of
9 the proceedings was made by me using machine shorthand
10 which was thereafter transcribed under my direction;
11 that the foregoing transcript is a true record of the
12 testimony given.
13 Further, that if the foregoing pertains to
14 the original transcript of a deposition in a Federal
15 Case, before completion of the proceedings, review
16 of the transcript [] was [] was not requested.
17 I further certify I am neither financially interested in
18 the action nor a relative or employee of any attorney or
19 any party to this action.
20 IN WITNESS WHEREOF, I have this date
21 subscribed my name.
22 Dated: October 24, 2023
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<p>1 JOSEPH D. SATTERLEY, ESQ. 2 jsatterley@kazanlaw.com 3 October 26, 2023 4 RE: EAGLES vs. ARVINMERITOR, INC. 5 October 23, 2023, WILLIAM LONGO, PH.D., VOL 2, JOB NO. 6167398 6 The above-referenced transcript has been 7 completed by Veritext Legal Solutions and 8 review of the transcript is being handled as follows: 9 __ Per CA State Code (CCP 2025.520 (a)-(e)) – Contact Veritext 10 to schedule a time to review the original transcript at 11 a Veritext office. 12 _x_ Per CA State Code (CCP 2025.520 (a)-(e)) – Locked .PDF 13 Transcript - The witness should review the transcript and 14 make any necessary corrections on the errata pages included 15 below, notating the page and line number of the corrections. 16 The witness should then sign and date the errata and penalty 17 of perjury pages and return the completed pages to all 18 appearing counsel within the period of time determined at 19 the deposition or provided by the Code of Civil Procedure. 20 __ Waiving the CA Code of Civil Procedure per Stipulation of 21 Counsel - Original transcript to be released for signature 22 as determined at the deposition. 23 __ Signature Waived – Reading & Signature was waived at the 24 time of the deposition. 25</p> <p style="text-align: right;">Page 279</p>	<p>1 EAGLES vs. ARVINMERITOR, INC. 2 WILLIAM LONGO, PH.D., VOL 2 (#6167398) 3 E R R A T A S H E E T 4 PAGE____ LINE____ CHANGE____ 5 _____ 6 REASON_____ 7 PAGE____ LINE____ CHANGE____ 8 _____ 9 REASON_____ 10 PAGE____ LINE____ CHANGE____ 11 _____ 12 REASON_____ 13 PAGE____ LINE____ CHANGE____ 14 _____ 15 REASON_____ 16 PAGE____ LINE____ CHANGE____ 17 _____ 18 REASON_____ 19 PAGE____ LINE____ CHANGE____ 20 _____ 21 REASON_____ 22 _____ 23 _____ 24 WITNESS _____ Date _____ 25</p> <p style="text-align: right;">Page 281</p>
<p>1 __ Federal R&S Requested (FRCP 30(e)(1)(B)) – Locked .PDF 2 Transcript - The witness should review the transcript and 3 make any necessary corrections on the errata pages included 4 below, notating the page and line number of the corrections. 5 The witness should then sign and date the errata and penalty 6 of perjury pages and return the completed pages to all 7 appearing counsel within the period of time determined at 8 the deposition or provided by the Federal Rules. 9 __ Federal R&S Not Requested - Reading & Signature was not 10 requested before the completion of the deposition. 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p> <p style="text-align: right;">Page 280</p>	

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[amosite - asking]

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[asking - blow]

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[color - cosmetic]

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California Code of Civil Procedure

Article 5. Transcript or Recording

Section 2025.520

(a) If the deposition testimony is stenographically recorded, the deposition officer shall send written notice to the deponent and to all parties attending the deposition when the Original transcript of the testimony for each session of the deposition is available for reading, correcting, and signing, unless the deponent and the attending parties agree on the record that the reading, correcting, and signing of the transcript of the testimony will be waived or that the reading, correcting, and signing of a transcript of the testimony will take place after the entire deposition has been concluded or at some other specific time.

(b) For 30 days following each notice under subdivision (a), unless the attending parties and the deponent agree on the record or otherwise in writing to a longer or shorter time period, the deponent may change the form or the substance of the answer to a question, and may either approve the transcript of the deposition by signing it, or

refuse to approve the transcript by not signing it.

(c) Alternatively, within this same period, the deponent may change the form or the substance of the answer to any question and may approve or refuse to approve the transcript by means of a letter to the deposition officer signed by the deponent which is mailed by certified or registered mail with return receipt requested. A copy of that letter shall be sent by first-class mail to all parties attending the deposition.

(d) For good cause shown, the court may shorten the 30-day period for making changes, approving, or refusing to approve the transcript.

(e) The deposition officer shall indicate on the original of the transcript, if the deponent has not already done so at the office of the deposition officer, any action taken by the deponent and indicate on the original of the transcript, the deponent's approval of, or failure or refusal to approve, the transcript. The deposition officer shall also notify in writing the parties attending the deposition of any changes which the deponent timely made in person.

(f) If the deponent fails or refuses to approve the transcript within the allotted period, the

deposition shall be given the same effect as though it had been approved, subject to any changes timely made by the deponent.

(g) Notwithstanding subdivision (f), on a seasonable motion to suppress the deposition, accompanied by a meet and confer declaration under Section 2016.040, the court may determine that the reasons given for the failure or refusal to approve the transcript require rejection of the deposition in whole or in part.

(h) The court shall impose a monetary sanction under Chapter 7 (commencing with Section 2023.010) against any party, person, or attorney who unsuccessfully makes or opposes a motion to suppress a deposition under this section, unless the court finds that the one subject to the sanction acted with substantial justification or that other circumstances make the imposition of the sanction unjust.

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